

Presidente

Robert Madigan
Ph: 0402 628 652
E: robert.m.madigan@gmail.com

Segretario

David Button
E: david_button@hotmail.com

Tesoriere

Allan Van Dulleman
E: avandull@hotmail.com

Club Capitano

Nessuno

Direttore/Editore

Philip Blake
Ph: 62652598
0409803316
E: pblake@ozemail.com.au

Membership

Robert Madigan
Ph: 0402 628 652
E: robert.m.madigan@gmail.com

Membri del Comitato

Graham Mitchell
Peter Lowe
Gary Lucas
Stewart Peacock
Matthew Keating
Tristan Roberts

Segretario sociale

Graham Mitchell
0418 173 102
grahammitchell666@gmail.com

Enquiries

For information on the club and general enquiries call any of the above members, or visit our Web Site: www.cmitas.org
Or Facebook page www.facebook.com/clubmotoriitalia

Address general correspondence and enquiries to:

The Segretario
Club Motori Italia Inc
PO Box 514
North Hobart 7002
or email
clubmotoriitalia@gmail.com

Advertising rates

1/4 page \$7.50 per issue
1/3 page \$10.00 per issue
1/2 page \$15.00 per issue
Full page \$25.00 per issue

Full yearly Membership fees:

1 January to 31 December
Social \$45
Motorsport/Competition \$65
Family \$90
(2 adults + kids under 18 - Family rate allows up to two competition members.)
Note: Applicants who wish to join part-way through the year will be charged a pro-rata membership fee based on the number of months left in the membership year. See the application form for details.

Meetings

Southern members meet on the final Tuesday of each month, January through to November, at the Civic Club, 134 Davey Street, Hobart.
The committee meeting is held between 6.30-8.00 pm. Drop in any night.

CMI's AGM is generally held at 7 pm on the last Tuesday of November at the Civic Club, Hobart.

All contributions to Veloce Nota are welcome and when published earn points towards the Clubman of the Year Award.

Please send all letters and contributions to The Editor: cmi.editorial@gmail.com

Disclaimer

While every effort is made to ensure the accuracy of the information, advice and responses in this newsletter, neither Club Motori Italia Inc nor its officers or members accept liability for any loss or damage arising.

CMI Life members:

Norman Henry
Graham Mitchell
David Mitchell
Steve Caplice
Rob Madigan
Tristan Roberts
Dave Button
Peter Lowe
Philip Blake



Facebook

www.facebook.com/clubmotoriitalia

THE BIG AND THE SMALL OF FIAT



The Fiat Professional range has the van you need to get the job done.

Whether it be the powerful and hard working Fiat Ducato or the dependable and nimble Doblo, Fiat Commercial vehicles make an impression



GET THE ITALIAN WEIGHT LIFTING TEAM ON YOUR SIDE

VINAKA ALFA FIAT



Sales Service and Spare Parts

Your Tasmanian Authorised Dealer for All of your Alfa Romeo, Fiat and Fiat commercial Vehicle needs

Vinaka Alfa Fiat

1 Amy Street Moonah 7009

Ph: 03 6273 0628 Email: vinaka@netspace.net.au



The Tasmanian Hillclimb Championship round at Baskerville is this coming weekend, so by the time the mag is in your hands it will all be over.

One thing you may notice is that I will not be in the OT1600. It lay down and died at Nutgrove Beach at the start of the month—no gears at all. This gave me all the impetus I needed to pull the motor and gearbox out so that the new box could go in—but of course it wasn't that simple. And while it was all out, I thought I would move the distributor to the side of the motor to allow the fitting of a hotter exhaust camshaft—which in turn means quite a few hours on the lathe making a new adjustable exhaust camwheel...

So for the moment I have no car of my own.

However, I expect to be sharing Michael Muldoon's MX5, which will be a good deal more relaxing than the OT ever is.

The entry form for the Baskerville Historics in September has just crossed my desk, so if you fancy having a gallop at probably the best circuit event of the year, now is your chance. Unfortunately I won't be there as I am competing in the Snowy River Sprint at Lakes Entrance on the same weekend—Covid permitting.

Early Bird entries for Targa Tasmania 2022 are just about to close as well, and it sounds like the 2022 event will be well attended.

Entries for Challenge Bathurst in November have just opened too, and Darryl Bennett and I are planning to take our cars up there, so we'd better get our fingers out and finish fixing up trailers.

Latest news on Chris Wiggins's Fiat 124 Sports Sedan is that it now looks like a car, and looks a bit like a Fiat, but isn't quite finished yet. Like most of us, Chris suffers from lack of time.

The Baskerville 1000 is happening the weekend after the CMI hillclimb, and I am on my third tentative offer of a drive, thanks to Covid-19. I'll let you know how that goes.

Presidential Patter



It's getting more and more difficult to settle into a traditional Tassie winter hibernation – and I couldn't be happier about it. Graham Mitchell's cryptic rally was a very enjoyable event which took club members through some spectacular scenery, presented challenging questions and delivered us into the

welcoming arms of the Southport Hotel. A snow-capped Adamson's Peak was a highlight for me and my family.

John (my eldest son) and I have attended two events at Baskerville which were lots of fun too. The first was a driver training day put on by the Hobart Sport-

ing Car Club to help prepare newcomers to the sport for club level events. This event was attended by a number of CMI members and has planted the idea of reviving our driver training days in my head. The second event was a combined hillclimb and supersprint run by the MG and Mini car clubs.

Looking to the future, CMI has its Baskerville hillclimb coming up in a few weeks and it looks like the Lufra hillclimb has a green light for later in the year. Another go-kart GP for club members has also been suggested. More personally the idea of getting my sadly neglected Alfa 147 up and running as a track car is occupying my thoughts so even a short hibernation looks unlikely. Roberto

Baskerville Supersprints



Club Motori Italia's March 2021 Supersprints were held at the Baskerville Raceway, north of Hobart, Tasmania, on a very pleasant early autumn day. 29 drivers competed in a field of predominantly Japanese marques - leading to some conjecture that the *M* of CMI might stand for Mazda - plus a good showing of Italian cars or vehicles belonging to host club members, as well as a sprinkling of German, British, Korean and Aussie makes.

The midday session saw some quite spirited driving, with a couple of close tussles playing out between Michael Watt in his Mazda 3 MPS and Richie Thimm and Chris Haugland, alternately sharing another Mazda 3; Phil Blake behind the wheel of his OT1600 versus Grant Woolnough in his Cortina; and Ian Bridge taking on James Quinn, with the former in an RX2 and the latter in an MX5. Thanks for the show!

Allan Van Dullemen was driving his Starion like he'd stolen it, only to withdraw with mechanical issues a short time later. However, that didn't stop him from taking out equal first place overall, a position he shared with Richie Thimm in his Mazda 3. Congratulations!

Geoff Storr in his Alfa GTV, Philip Sawers driving an XU1 Torana, Greg Hall at the controls of his Datsun 240Z and Bruce Heron piloting his trusty Triumph Dolomite all made it look easy, lapping consistently and smoothly. Angus Haydon, in an R31 Skyline, and Gary Lucas with his angry little Sprinter, both also looked to be on-song, as was the screaming yellow Suzuki driven by Darryl Bennett.

It was good to see some family fun, with several cars entered with related drivers. Nick and





Charlie Hay ran in their 316i BMW, the Hobarts—Richard (morning session) and Warrick - shared a silver MX5, while Robert and John Madigan competed in their lovely rosso / oro (red and gold for non-CMI readers) Alfasud. Robert also won the Italian A class while John took out the Driver of The Day award, so a double podium day for Team Madigan!

At the end of the day, the class and category winners were: as shown in the panel to the right.

Class / Category / Car	Driver /
Class A	Gary Lucas (Toyota Sprinter)
Class B	Richie Thimm (Mazda 3)
Class C	Angus Haydon (R31 Skyline)
Class D	Allan van Dullemen (Mitsubishi Starion)
Class E	Greg Hall (Datsun 240Z)
Italian A	Robert Madigan (Alfasud)
Italian B	Geoff Storr (Alfa GTV)
Driver of the Day	John Madigan (Alfasud)
Best Presented	Gary Lucas (Toyota Sprinter).



If memory serves correctly, the Roberts family are CMI's most consistent cryptic triallers of late, having taken out first and/or second place in August 2020's Bothwell run and in the Tasman Peninsula event during November the same year. It looks like their top of the table position will be consolidated in 2021, too, with Tristan, Emily, Jasper and Stella crewing an uncle's beautiful Fiat 2300S coupe to secure another podium finish in Graham Mitchell's latest instalment of the popular social competition, which was held in the Huon and Dover areas in May.

However, relative newcomers Juanita and Alastair Watson ('75 Galant hardtop) - who



*Above and below: The Team Roberts voiture du jour, courtesy of Doug Blain.
Pics by Alastair Watson and Tristan Roberts*



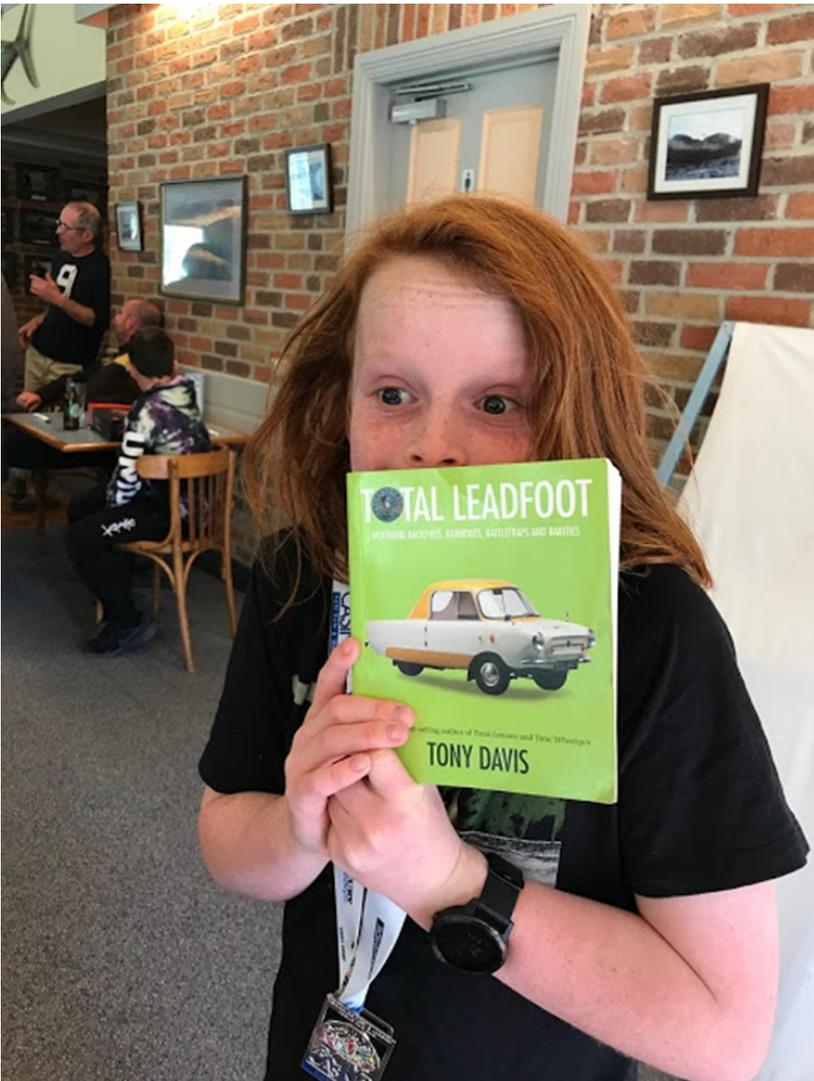
Alastair (the winner) Watson



scored a third in the Tasman Peninsula round in their X1/9 - are threatening the overall lead, beating Mathew Keating and Katherine by a slim margin on the day, relegating them to second place, with Team Roberts in third.

Fourth place went to Stewart and Linda Peacock, while fifth was taken by Peter and Annette Lowe. The scores were close; only one point separating each of the first five spots, with the others all within a bull's roar of each other.

Thanks, as always, to Graham for devising another cranium strainium inducing route with plenty of quirky clues, great Tasmanian scenery and brilliant driving roads. His choice of lunch time venue - the Southport Hotel - was very suitable, too. And, finally, thank you to all the entrants for helping to make the whole event such a fun day out!



Above: No correspondence will be entered into...

Left: The spoils of 1st and 3rd

Something special from Southport

'I never expected to see an OT1600 in Southport', said the big guy standing beside my car. He was one of the few people I've ever met who knew immediately what my car was (or was supposed to be).

Toby Welstead introduced himself, and said that when he had seen us all leave the pub he had rushed out to get ahead of us so that he wouldn't miss the departure of the beast.

I gave him a brief tour of the car, and he mentioned that he had a 600. Turned out it wasn't just a 600, but one that was seriously *Abartizzato*.

When we got home I was determined not to lose touch, and found him on Facebook. He sent me the attached pics of his car, which—well, judge for yourself.



Editor's note: I found this article some years ago on what I think was a hot-rodding site, and kept it in my tuning archives.

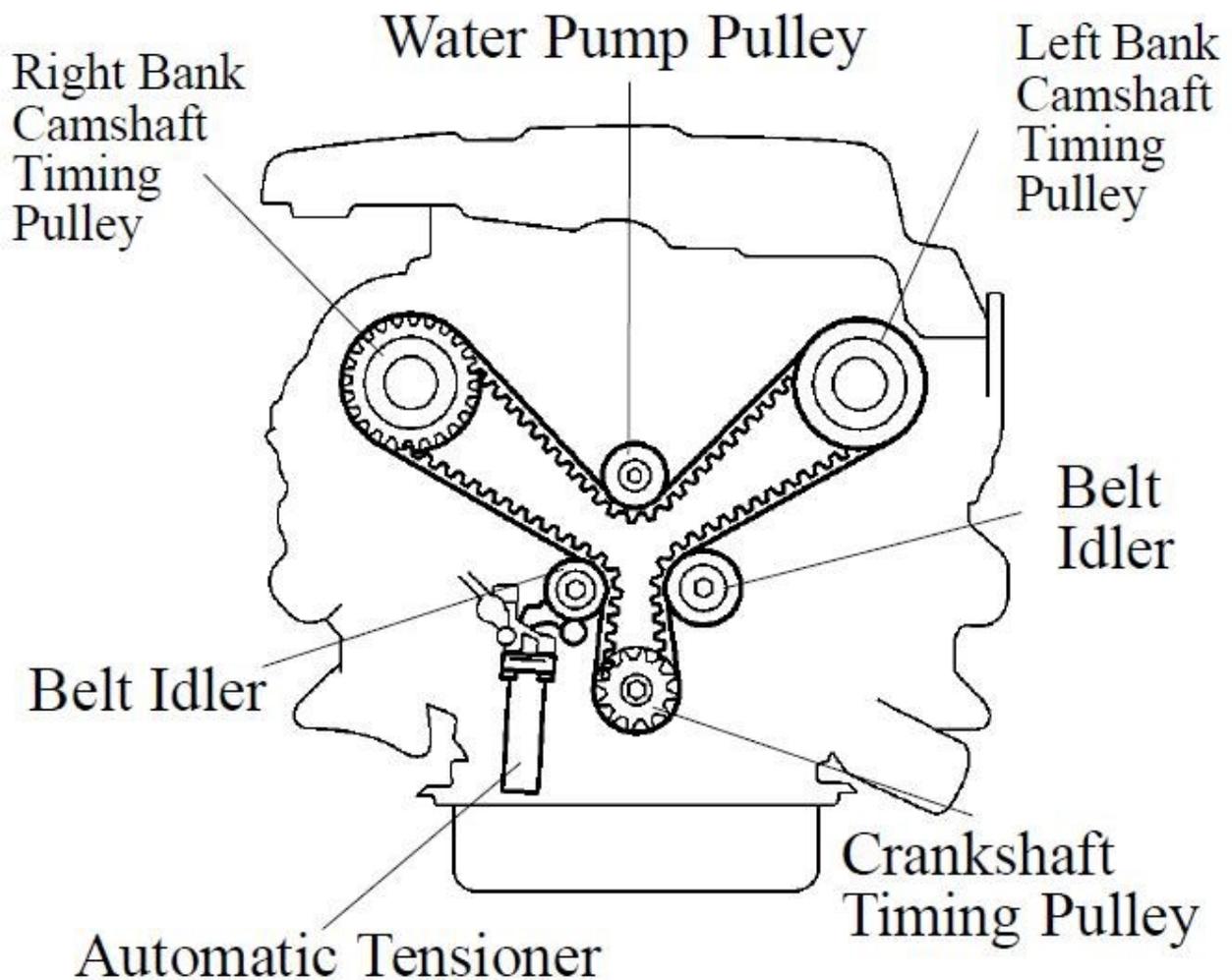
I also acted on its principles by installing adjustable cam wheels on my OT1600 engine, and was startled by the improved performance.

I originally intended to write a story using this information and some other bits and pieces from Guy Croft's book on Fiat twin-cam engines about how to dial in a cam. But I've left it alone and printed the whole article. It refers to an OHC V8 but the principles are correct, whatever your OHC engine.

I decided to write this article in collaboration with Rod (Zuffen) to help enlighten fellow hotrodders on this subject, which is probably as critical to making power out of your DOHC engine as the black art of head porting. At least this subject is fairly straightforward and not too difficult to understand, whereas to really understand head porting you probably need a PhD in fluid dynamics and have access to a supercomputer.

So what do shaved heads, camshaft timing and adjustable cam gears have in common? Plenty, but first some background.

When the OEM's design and build an OHC engine, they have to connect the cams on the top of the motor with the crankshaft at the bottom of the motor so the crankshaft can spin the cams at exactly half the speed of the engine, and the cams will open & close the valves at very precisely determined intervals. The method of connecting the cams and crankshaft is the timing belt or timing chain, and once the distance is established and fixed between the centerline of the crankshaft and the cams, the position of the timing marks on the cam covers can also be fixed. (This is part of the design bit that we hotrod-



ders don't get to see.) Once this geometrical relationship is fixed, and the distance doesn't change between the cams and crank, the timing marks will always be aligned and we can be sure that the valve events will always occur when they're supposed to. For sake of illustration, let's refer to this distance in terms of timing belt teeth, and say there's 100 teeth between the timing mark on the cam and the timing mark on the crank of our engine. And let's mark the belt tooth 0 on the crank, when the #1 piston is at TDC. Let's also mark the position of belt tooth 100 on the cam when the #1 piston is at TDC.

Now, let's assume the distance between the crank and cams changes. What do you think will happen to the engine timing when that distance is shortened, and now there are only 99 1/2 teeth between the cams and the crank? No problem you say, the timing belt tensioner will take up the slack. And this is what most people would think also, but it's wrong. Now, with this shortened distance, all the events that the crankshaft expects to happen with the valves when it's on the 0 tooth of the belt, will not have happened yet, because the cam side is on the 99 1/2 tooth, not the 100th. In other words, the cam events have become retarded (or late) by half a tooth.

So what can change this cam-to-crank distance? Head shaving or resurfacing, as well as block decking will achieve this result.

As a part of every high performance rebuild any good engine builder is going to 'true up' or resurface the heads and block of the engine, in order to ensure 'his' build has the very best flat sealing surfaces possible. Let's

take another hypothetical example to see what happens when he does this. Let's say the builder takes off 0.005" from each head, and from each side of the block. That's 0.010" from each bank, or 0.020' total, right? Now does that mean the timing belt has become 0.020" too long? No, it has become TWICE that, or 0.040" too long. Why? Refer to the diagram below, and notice what happens if a cam timing pulley is moved inward toward the crank by 1mm. Is the length of the belt affected by only 1mm? No, the effect is double, because the belt passes on both sides of the pulley, and has 180 degrees of wrap, or more.

Now that we've seen how taking off 0.020' worth of material has translated into a timing belt that is 0.040' too long, let's translate this into timing error. We know that the upper pulleys have 48 teeth and the pitch of these teeth is 8mm. Therefore the 'pitch' circumference of the pulley is $48 \times 8 = 384\text{mm}$. Now if we have an error of 0.040", this is 1.02mm , or $1.02 \times 360/384 = 0.96$ degrees at the camshafts, or twice that at the crankshaft.

So simply by skimming 0.005' off each head & block surface in order to get a flat and near perfect sealing surface, we have just introduced 2 degrees worth of valve timing error into the engine. This is why some OEM's do not recommend resurfacing their DOHC heads or blocks at all.

OK, so now all our timing events are 2 degrees off; what can we do about it? There are multiple solutions. First, the material that was taken off the heads or block can be restored, in the form of a thicker head

gasket. This could also be a good way of dropping, or restoring the original compression, if the motor is being built for turbo or supercharged duty. However, it could also upset the delicate squish relationship, if one isn't careful..... Another way is to re-establish the original timing sequence with adjustable timing gears on the cams. This has the effect of allowing you to realign the timing marks and timing events based on the new, shorter geometry of the engine. And yet another way is to go to the cam manufacturer, and ask them to grind the cams with more advance, to compensate for the retardation introduced by the resurfacing. However, neither of these last two methods will account for the shortened distance between the cam sprockets and the crank, and the resulting timing belt looseness. Hopefully the timing belt tensioner can take up this slack, but if not, then the tensioner must be shimmed, or a shorter belt considered.

Now the Really Smart Guys amongst us will say 'Hang on a minute. If I align my cam sprocket marks with the static marks on top, and my crank timing marks on bottom and I fit the timing belt on, and it's good & tight, then the timing can't be off.' And you'd be right, but only if the loss of material has resulted in an error of exactly 1 full tooth or multiples of that. If the loss of material results in a fraction of a tooth, then something has to shift 1/2 a tooth for the belt to go on properly. And a 1/2 tooth shift is $0.5/48 \times 360 = 3.75$ degrees error, at the cams, or 7.5 degrees at the crank. Scary.

So there you have it, the relationships between head shaving, block decking and cam timing.

The key concepts that should be remembered are:

Resurfacing takes away material, shortens the distance between the cams and the crankshaft, and retards the cam timing. Retarded cam timing actually ‘retards’ or delays the peak power of the engine and shifts it to a higher RPM, which can actually be a good thing, but at a loss to low RPM power.

Adding material, and restoring the distance between the cams and the crank will advance the cam timing, and will ‘advance’ the peak power back into a lower RPM area.

In conclusion, after you’ve plunked down good money for a high performance rebuild, and a new set of cams, don’t be surprised if those cams don’t ‘degree in’ as expected.

Secondly, after a high performance rebuild, if you find that you have an unusually loose timing belt, you need to pin the builder down on exactly how much material he had to take off the heads and block, as you’re likely in for a difficult time with your cam timing.

Bottom line, a good set of adjustable timing gears are a wise investment after an engine rebuild, and may be the only solution to get the top & bottom of the motor working together again.

Authors’ Note: Most of the information you’ve just read is not original. All this is available in bits and pieces from engine building manuals and people who are genuine engine gurus. However,

no sources were able to provide a clear, concise explanation about why resurfacing heads and blocks retards the cam timing. So after a lot of thought, and a lot of pictures and diagrams, it’s now presented in what we believe to be a clear & concise manner. We hope you ‘get’ it from our explanation, and are now able to use it for your own benefit.

John Cribb (Cribbj) and Rod Garnett (Zuffen)

2-litre Fiat engine with adjustable cam wheels shown below for clarity.

Note that no matter what the tensioner does, the number of teeth from top to bottom of the engine is unaffected. Any change to head depth or deck height will affect it, however.



Recently our trusty family wagon decided that drive wasn't an option. So, after organising a tow to Fogarty's from Bunnings in Kingston, Robert and I went home and contemplated life with one working car and two semi-working SI cars.

As my commute is only five minutes down the road and Robert's is 40 minutes through town it was decided that lucky me got the SI car, the only decision being which one?

My choices were a red and gold Alfa Sud with a leaking windscreen and a racing seat that I wasn't sure I could get close enough to the steering wheel to safely drive OR a 30 year old brown Corolla we had got for Robert and John to use at motorhans. This came complete with a dodgy driver's door lock, leaking power steering fluid and a boot that doesn't open. Most importantly, there are no cupholders!

The Corolla won and Robert disconnected the power steering altogether so I got a good arm workout every time I turned a



corner and three-point turns have been interesting. Driving to school every day (I work at Kingston High School) is not a quiet affair as there is also a hole in the exhaust. My passenger appointed himself co-driver – “into 3rd Mum, gotta heel and toe here or you will stall, double clutch down to third”. Very helpful John.

There are positives to driving this car: the radio, heater and windscreen wipers work and if I owned a cassette tape, I could play it.

Steve assures me that the Mondeo is not terminal and I

will get it back soon. I know I am lucky to have spare cars that I can drive and we didn't have to hire a car.

When I get my car back, I will not take for granted the central locking, the hum of the diesel engine, the Bluetooth connectivity, cupholders and most of all power steering! AC

My conclusion for all this is while a classic car is lovely to have and to take on the occasional outing, for a daily driver you can't beat 'modern'!

Fiona Madigan



As sensible, responsible and interested motorists, with a sporting outlook on our motoring, when the very first Takata air bag alerts were released via the media, many of us quickly checked if our family of various cars were listed. Amazingly, many popular brands (meaning plenty had sold) were affected by the immediate recall to contact your nearest dealer for the air bag to be replaced urgently. BMW is one of the brands that is affected by the Takata recall. All manufacturers have spent considerable time and money to contact the car owners to have the replacement repairs done, at the manufacturers' expense, by their dealers.

Well, the parents (senior citizens) of a friend of mine both own and drive BMWs. Their cars are just outside of the ages/dates nominated for the first Takata recall, so they felt relieved that they were not affected. However, late last year a further recall listed one of the earlier cars, the owner notified by letter to stop driving immediately. BMW would collect the car for the airbag to be replaced and a rental car could be provided as a replacement until the repairs had been done and the car returned.

On 16 December last year, a tilt-tray truck arrived at the address in Emerald, Victoria. A receipt was provided and the car was taken away for the dealer to replace the driver side air bag. A few days later the dealer was contacted to advise

when the car would be returned after the air bag had been replaced. It would be between 12 and 24 months, as there was a major shortage of the required model air bag and the owner was offered to be paid out at the market price for that model. This was an offer well below what the car was worth to the owner, Eric, so he declined the offer. He had decided he would wait for the job to be done so he could keep the car he loved driving. He would accept the offer of a rental car until all had been attended to on his BMW.

I am unsure if it was the dealer or the car rental company that contacted him to advise that the rental car was available for him to collect at the Emerald airport, at his convenience. Yes, there was indeed a car waiting for him to collect, at the Emerald airport in Qld, about 3000kms north of his home in Emerald, Victoria. A few days later, sometime between Christmas and New Year, the rental car was eventually in his possession, something front-wheel drive.

Towards the end of January the rental car company contacted

Eric for the following month's rental fee to be paid. Eric declined, advising that they should instead make contact with BMW as that was whom their rental agreement was with. Thereafter, until the BMW was returned in mid-June, the rental car has been used by Eric when and as needed for the usual chores of living a normal life.

When the BMW was returned to Eric, it had been fully detailed and despite having been stored in a large warehouse, there was no damage or scratches on it. Eric is very pleased to have his BMW back and is planning to keep it for many more years, yet. He is also very pleased with how BMW and their dealer have honourably dealt with this issue. With just over 100,000kms on it, it is only just run in. Unfortunately, the detailing effect won't last very long as Eric (and his BMW) live on a dirt road in Emerald.

Six months of car rental is just an added expense of the Takata air bag recall for a company like BMW. Some brands have dealt with the recall far better than others have.



“NO ONE KNOWS YOUR
PASSION LIKE SHANNONS.”



The passion, the pride of ownership, the sheer emotional attachment – no one understands it better than Shannons. So when it comes to insurance for your special car, daily drive, bike or even your home, there's only one person you should talk to – a fellow enthusiast at Shannons. And remember, you can pay your premium by the month at no extra cost.

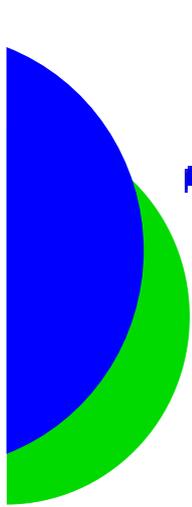
So call Shannons for a    quote on **13 46 46**.



SHARE THE PASSION

INSURANCE FOR MOTORING ENTHUSIASTS | CALL 13 46 46 FOR A QUOTE | SHANNONS.COM.AU

Shannons Pty Limited ABN 91 099 692 636 is an authorised representative of AAI Limited ABN 46 005 297 807, the product issuer. Read the Product Disclosure Statement before buying this insurance. Contact us for a copy.



Ambulance Private Pty Ltd

Non-Urgent Ambulance

Bookings: 1300 363 911

24 hours a day, 7 days a week

Ambulance Private Pty Ltd

**FOGARTY AUTOMOTIVE
SERVICES**

General repairs on all Makes & Models

Specialists in Fiat, Lancia, BMW Alfa Romeo
including spare parts supply

Steve Caplice

0418 148 608

18 Wellington St North Hobart

North Hobart 7000 Ph: (03) 6234 8868

drive your motorsport further with **stuart benson**



I'm really
excited to offer you a
\$500 sponsorship
of your motorsport
activity for each and
every property listing
that you refer to me,
that results
in a sale.

stuart benson
PROPERTY CONSULTANT
0412 868 979
sbenson@petrusma.com.au

15 Shoreline Drive, Howrah 6247 7877

