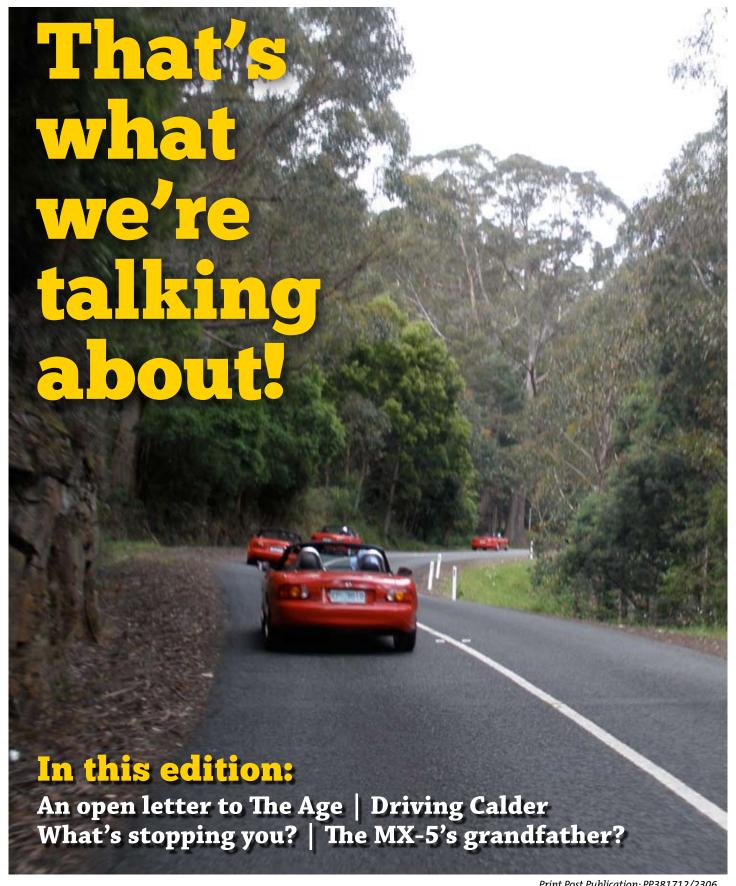


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THE MONTHLY MAGAZINE OF THE MAZDA MX-5 CLUB OF VICTORIA INC.





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Cover image:

Proof that the red ones go faster! The reds have the lead on the Hobart Chapter's Cygnet run in January. Photo: Alyssa Finlay



Find us at: MX-5 Club of Victoria

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Murray's Corner ...

■ Murray Finlay - President

I'm back for a rest!

Over the last few weekends I've had a full-on weekend in Tasmania visiting the two Chapters there, sweltered through the "Cars of the World" display and led the annual President's run.

The Tassie trip was fantastic! All the members of both Chapters made Alyssa and me feel most welcome, and I hope we made them feel that they are an integral part of the Club.

From the moment we landed in Devonport on the Friday afternoon, it was all go! Convenor Ken loaned us his wonderful 1990 Classic Red NA (complete with wooden steering wheel) and took us on a tour of the storm-ravaged roads around the north before finishing for dinner with the Chapter in Forth.

On the Saturday it was up early and off to Deloraine to meet the rest of the Chapter and then on to Ross, in the middle of the eastern half of the island, for lunch. There we met the two Hobart Convenors, Johns Hadrill and Waldock, who loaned us John H's NB and escorted us to Hobart via the spectacular East Coast road.

After a very genial dinner with Chapter members at John and Michelle Waldock's home on Saturday night, it was up again at sparrow's on Sunday for the famous "Cygnet Run" (see the "20 Roads" book for details), this time in Liz Williams' 2000 blue NB.

Special thanks to Ken and Ruth Beaton and John Hadrill for their gracious hospitality, John and John for driving up to Ross to collect us, Michelle for a meal fit for Master Chef, and to Ken, John H, John W and Liz for the very generous use of their precious MX-5s.

Our lasting impressions of Tasmania are that the roads are deserted and are just sensational for an MX-5, but there's so much road pizza! And driving through, you could be in a slice of England or an extension of Victoria but, as the sign near Lake Barrington says, there's *Nowhere Else* like it!

The rescheduled **Cars of the World** display at Rochford on 30 January was a resounding success, despite the oppressive heat (which was in stark contrast to the wash-out last October) with 29 Club MX-5s among the 260 cars on display.

Hot on the heels of his win in the Club Christmas show & shine in November, Eric Field walked off with second prize for the MX-5s. Unfortunately, the MX-5 that won was not in the Club!

Thanks to all who attended to represent the Club, and especially to Glenda, Brian, Steve and Dan for their help with marshalling on the day.

Unfortunately the President's run to Donna Buang run was postponed to 6 March. I hope everyone got through the storms unscathed. Still, mustn't grumble about the weather!

I'm sure we've all been touched by the storm damage we've seen in both Victoria and Queensland, and we will be making a donation on behalf of members to the Victorian flood appeal. Lockie Story in Mockinya in Victoria's west suffered some fence damage, but as far as I'm aware noone else was affected. We sent a message of support to the Queensland Club, which was gratefully received, and on Sunday Queensland Club President Denise Peck sent her best wishes back south. It's great to have that sort of national support!

Closer to home, your committee is undertaking a review of our current financial position, and will be making some decisions before 30 June about our membership fees (which have not increased for several years), mxtra advertising rates and so on, to make sure we are covering our costs.

Further than that, though, a sub-committee of some very clever people is preparing a business plan for the Club to work out where we want to go over the next three years and how we want to get there. This will take a little time to develop, and will probably involve a call to all Club members for thoughts and suggestions.

This is the first time to my knowledge that the Club has undertaken such formal forward planning, and I'm excited to see what comes out of it.

Finally, a note of housekeeping: one of our Club sponsors, the MX5 Centre, has moved to a new address and is now part of Revolution Racegear in Kensington. MX5 Centre's updated advertisement is on page 23, and we will have a profile on their business and what they offer in the March edition of mxtra.

Until next time, look up, stay back!

Murray



For your diary ...

See the full calendar for details

February

20 Bendigo run

27 Al & Rodney's Reefton run

March

6 President's run (rescheduled)

12-14 Bienniel SA-Vic joint weekend away: Mt Gambier

13 Karting morning

19-20 North Tassie overnighter

20 N-E Vic: Yackandandah run

24 New Members' Night (see p6)

April

3 Dave's Burger Run

22-25 Easter

26 Anzac Day (in lieu)

May

7 Campbells'run

8 Mother's Day

17-19 Mid-week adventure run

June

5 Searls'run

13 Queen's Birthday

19 DECA driver training, Shepparton



Motor Sport Torque



■ Robert Downes – Club Captain - Motor Sport

With no motor sport happening in January, this report is "short and sweet".

Motor Sport Championship

By the time you read this, the 6 February Sandown round of the Championship will be "done and dusted". Run under the control of the HSV Owners Club of Victoria and supported by entries from JCCV, FPV Club of Victoria and ourselves, we trust that the weather was favourable and the event ran smoothly. Details and wrap up next month.

Thereafter the next round is at Winton on 6 March, preceded on the Saturday by the "Racecraft" training day.

Annual Motor Sport Meeting - City Mazda, Friday, 8 April, 2011.

Please let me know if you will be attending. It is important to tell me in advance if you wish to have an item/issue discussed so I can include it on the agenda.

As mentioned in last month's *Torque*, a small team is reviewing our Motor Sport Championship Rules with the view of having a "proposal" available to all stakeholders by mid-March in readiness for that meeting.

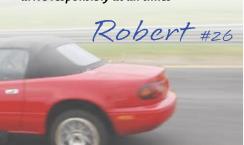
Motor Sport opportunities outside our Championship

I will email the motor sport group members details of meetings conducted by the MSCA, WRX Club and the Mazda MX-5 Club of NSW that may interest those in doing additional race meetings to our Club Championship.

New Members' Night

It would be great if the Motor Sport Team could be well represented at this function as a lot of new members have expressed an interest in motor sport.

Until next month ...
"drive responsibly at all times"



Motor sport calendar

See the full calendar for details

March

- 5 Racecraft training, Winton
- 6 Rd 6: Sprints, Winton

April

- 3 Rd 7: Sprints, Phillip Island
- 8 Annual motor sport meeting, City Mazda

May

1 Rd 8: Hillclimb, Haunted Hills (TBC)

lune

12 Rd 9: Sprints, Sandown

July 2010-2011 season

2 Rd 1: Sprints, Phillip Island

August

- 6 Racecraft training, Winton
- 7 Rd 2: Sprints, Winton

September

18 Rd 3: Sprints, Sandown



Who needs a ute??

Leon Wilson of the Ballarat Chapter writes ...

I went to the hardware store on the weekend to grab some wood and other bits and pieces to

make a vegie patch.

Turns out, the MX can hold quite a lot.

I was able to get the following in the car:

- » 6 treated pine sleepers
- » 1 bag of slow release fertiliser
- » 4 iron star pickets
- 8 metres of chicken wire4 wooden
- blocks and a few tools ...



Free tickets!

Phillip Island Classic



The Victorian Historic Racing Register has given the Club two free tickets to next month's three-day annual Philip Island Classic Festival

of Motorsport, which takes place on 18-20 March.

VHRR expects around 500 classic and historic sports cars to take part in the display and historic racing events.

Along with its "celebration of sports cars", the meeting will also mark the 40th anniversary of the iconic Falcon XY GT-HO, with around 20 examples on display.

Full details of the event can be found on the VHRR website, at www.vhrr.com/phillip_island.htm

If you're interested, the tickets – worth \$70 each – are available on a strict first-come-best-dressed basis. Please e-mail president@mx5vic.org.au and try your luck.



■ Will Campbell – Membership Officer

A bumper month with 11 new members and four renewals!

I wish the following folk all the very best for a fruitful and enjoyable time in our Club:

»	Neil Adams	1999 Silver NB
»	James Belsar	1994 Classic Red NA
»	Chris Davies	1993 White NA
»	Stephen Downes	1997 Red NA
»	David Gordon & Kim Lehmann	1989 White NA
»	Alex Hailstone	1995 White NA
»	Rhys Hynam	2010 True Red NC
»	Robert Purse	2001 Silver NB
»	Rudy Vanderelst	1993 Classic Red NA
»	Darren Wallace	2000 Silver NB

I also welcome Barrie and Carole Gibson, and Graeme Goller back into the fold after prolonged absences.

Finally, I apologise to Peter and Anita Silva for incorrectly spelling their surname in last month's report. My surname is occasionally misspelt and I know it's annoying!

See you out and about ...



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... is proud to offer all members of the Mazda MX-5 Club of Victoria a big discount (up to 15%) off their full range of merchandise.

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(NB: only Peter Rutherford or Hayden Dally are authorised to give Club discounts in-store.)

Current membership count:



Your invitation

New Members' Night: 24 March, 2011

NEW and "used" members are all welcome to the 2011 New Members' Night.

It's an evening where, traditionally, both new and old members take the opportunity to share a chat

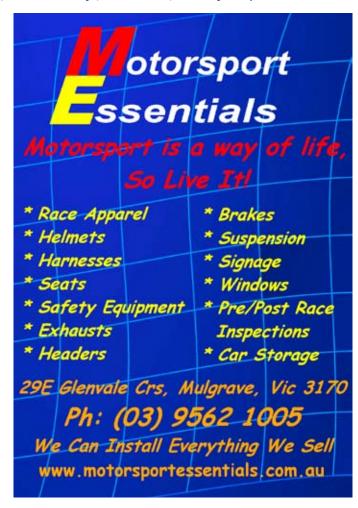


with like-minded enthusiasts and an opportunity for our newer friends to learn more about all the Club has to offer.

It will be a casual get-together at the popular *Garage Café* at **221 Berkeley Street, Carlton**.

ALL Club members, especially those new to the Club, are invited to join us for dinner (own cost) on Thursday, 24 March – gathering at 6:30pm. (Check out their website to see the available menu and location map: www.garagecafe.com.au) Get there early enough and you can take advantage of the Garage's off-street parking!

Please call Judy (0408 568 345) to book your spot.



An open letter ...

THE AGE SOM

to Steve Colquhoun, The Age

Dear Steve,

I would like to register my strong negative reaction to the comparison between an MX-5 and a Mini Cooper which you penned in the 17-18 December edition of *Drive* published in *The Age*.

To be specific you compared a Mini Cooper S Cabrio with a Mazda MX-5 Soft-top Touring. I'm wondering what on earth inspired you to make such a comparison given that the two models are designed for quite different market segments. Minor differences such as four seats in the Mini and two in the MX-5 may have stopped even the most uninterested car driver from considering a serious comparison.

But, let's get down to detail and have a look at the arguments which you saw in favour of the Mini. Under Value which you ticked in favour of the Mini you saw cloth seats as superior to leather (I can think of one MX-5 driver who might agree) and you rated a single disk CD player (un-named brand) with six speakers as superior to a six-stack Bose system with seven speakers. What seemed to work in favour of the Mini was the rain-sensing wipers, auto headlights and rear parking sensors (only God knows why they would be helpful in such a small car). So, that only leaves an extra 17kW and 52 Nm which you claimed to justify the Mini's cost premium in excess of \$4000 over the MX-5. Given that Mazda have never put engine power in their top three objectives for the car, you have to wonder about the relevance – especially as you have admitted later in the comparison that the MX-5 is better than the Mini in your How it Drives category.

Back to your other categories of comparison. In the *Engine* critique you have compared the Mini's 1.6 litre turbocharged motor with the MX-5's 2 litre non-turbocharged motor. Is it any wonder therefore that you noted the Mini's acceleration was "peakier" and more "punchy" than the Mazda? In spite of the fact that you thought the manual in the



Mini was a little sloppy (in stark contrast to the MX-5) and it struggled to keep pace on the hills, you still gave the tick in favour of the Mini. *Interesting!*

I think it would be fair to say that you "got it" in the *How it Drives* comparison, so well done.

Now to the **Fun Factor**, which the Mini also won. Having "got it" you clearly "lost it" again in this comparison. In fact you got caught up in what personally appeals to you by way of car appearance – the funky retro look etc etc. This seems to be more important to you than the "racerlike seating position" which "adds to the feeling that you're a part of the car" and your acceptance that the MX-5 is "for the driver who simply loves corners and can excuse the frumpier interior".

In the *Safety* comparison you noted that the hard-top Mini had a five-star EuroNCAP crash-safety rating in the hard-top model whereas the MX-5 gained a four-star rating in the same test. Hang on a minute, aren't we comparing the Cabrio here? So what is the EuroNCAP rating for the Cabrio? Is there one or were you too

lazy to find out? I'll admit that I'm too lazy too, because at this point I really started to wonder about bias and unfair comparisons.

So, in the final **verdict** you gave it to the Mini. Given your moving criteria, who wouldn't? Was it a fair comparison, did it make sense, am I convinced of your verdict? Well, let me first check the dictionary meaning for the word "compare" (I couldn't find head to head). In the Concise Oxford Dictionary they talk about the estimation of similarity or dissimilarity in quality and/or quantity around defined criteria. It seems to me your criteria changed both within and between categories, depending on the car. Well, I guess it's like computer information: rubbish in = rubbish out.

On the upside, though, you did manage to fill half a page of The Age which would have made them happy. Pity you completely missed the point about the MX-5 and, in the process, picked on positives for the Mini which even my Mini-loving mate thought odd.

Don Nicoll

Speed cameras, Gran Turismo 5, electric

■ Words & photos: Brendan Beavis

For the best part of 2010 Brendan
Beavis has done a great job
marshalling reports from track
events organised by our motor sport
enthusiasts. Unfortunately work
commitments will prevent him
continuing the role in 2011. As a
last hurrah, Brendan volunteered
the following commentary on speed
cameras, computer games, electric
cars and yes ... how to encourage us
(or is it him) to pay speeding fines.





Recently a video game was released for a game console that some of the older folk in the world would call "that X-Playbox station thingy".

The game is *Gran Turismo 5*. Like most things these days, this game was marketed with advertising and fancy slogans. However, unlike most things, it wasn't sex that sold Gran Turismo 5.

You see, the marketing folk for *GT5* chose to advertise the game as "The Real Driving Simulator", no doubt targeting the diehard car fan. This is of course a lie. You do not drive cars in *GT5*. There is no "Sunday cruise along the coast" option. Nor is there a "mass commute to work via the Monash" game mode. In *GT5* you do not drive cars – you race them.

To achieve success in *GT5*, you must learn precise car control, racing lines and braking techniques. Without these you cannot win. Think weight transfer, left foot braking, matching revs on downshifts. This is how precise *GT5* requires you to be or you will fail. All these things can be learnt and practiced in your home, at any time of day, and without any concern for the police.

Of course, if the police could, they'd likely try installing speed cameras in video games. Naturally not to slow us down, but as a way to raise revenue. Sure, that may be a low blow to the speed camera chaps but, when the facts show only 2% of fatalities are caused by speeding vehicles yet speed cameras are cropping up more and more, it seems justified to argue against them. I could ramble on about speed camera facts and figures all day. The fact is it's unlikely to change the minds of the cheese eaters that install, run and profit from the cameras. (Ed: hey, I love cheese and hate speed cameras so where do I fit in this sentence?)

"But I don't care for video games and speed cameras," you say. Well, perhaps you may be interested in a little item known as the *Tesla Roadster*, an American conversion of the Lotus Elise that's been electrified. Internal combustion engine removed, electric motor installed. That means 100% torque from a standstill, instant power and supercar performance. This is



cars and speeding fines ...



the first electric car with performance flair in a mass-produced consumer market. Sure you'll need to plug it in every few days, and it's probably not as light as the petrol equivalent thanks to the batteries. But it's a unique piece of electronic/automotive genius. Will this change motoring? Not just yet; at the moment there's still room for fossil fuels in this world.

No doubt the Tesla is a move toward an even greater marriage between the electronic and mechanical industries. Perhaps this is a sign of things to come. Of course if you don't have the \$100,000+funds to grab a Tesla Roadster for yourself, you could perhaps give it a go on *GT5*. While you're there you could take a moment to have a look at some of the automotive imagery that *GT5* is able to create. Photo-realistic cars in photo-realistic environments.

Stunning lighting effects generated from a computer and projected on to your screen.

Sure it's all impressive computerised witchcraft, but it's not real. So get out there, take your real car to a real track and give it a go.



And consider this: perhaps if the speed cameras could produce photos of our cars as beautifully as the images out of GT5, we'd all be a little more inclined to pay the fines ...

Ed: Totally unrelated but, if you would like to see a Skyline trying to follow Brendan's NA around Phillip Island last December, take a look at his video on **youtube:** www.youtube.com/user/BEAVISHSV#p/a/u/1/qvZRijtr8-Y





Club merchandise

■ Steve Dunlop, Merchandise

Ladies' summer polos - short-sleeve or 3/4 sleeve



Modern fit, 210gsm, 96% cotton/4% elastane, pique knit, with knitted rib "Y" front placket and knitted cuff, topstitched shoulders and armholes, side splits with matching twill tape.

Available Colours: pink, white, sand, spring blue, French blue, navy, purple, red or black with contrasting "Mazda MX-5 Club" embroidery.

Size:	6	8	10	12	14	16	18
Half Chest (cm):							
	44	46.5	49	51.5	54	56.5	59

Get them while they're hot! Contact Club Merchandise Officer Steve Dunlop: merchandise@mx5vic.org.au ...



I've always had a soft spot for British cars.

When my parents left Britain in the shadow of the 'cold war' in 1965 they brought with them a little corner of England. My childhood involved food, turns of phrase, humour and traditions often more from there than here, and although Ford Falcons were something ever-present through our Australian motoring history, a series of British marques also passed through our garages. Austins, Humbers, Daimlers, Jaguars and Triumphs all had time with us and prospered in my father's capable hands.

Like most teenagers I always had something better to do than to learn the skills of automotive maintenance and repair, but my first car - a \$240, 1962 Hillman Minx - needed work. Cars came and went, including Austin 1800s and a Leyland P76, and looking back this was truly quality time with my father.

After many years of practical family cars I bought the MX-5 and immediately it rekindled my interest in cars, and especially the lightweight British sports cars of which it is so reminiscent.

When my father fell ill in mid-2010 it became clear that time was running out for he and I to have that quality time. I decided that the perfect way to do that was to find a Spitfire, MG or something and restore it together, with me doing the physical stuff while he oversaw the process. Initially Dad was less than keen but a few nicely placed editions of Just Cars and Unique Cars sowed the seed and he warmed at the prospect.

Unfortunately his health failed a lot faster than expected and he passed away last October. It was a terrible shock to all.

During the following months John Waldock and I talked about the original idea and he offered to buy a half share in a car with me so we best friends could restore it together. Dad had left me his large array of tools and it occurred to me that buying an old British sports car would give those 1/2 and 9/16 AF spanners and sockets a new lease on life - the MX-5 and its stable mates being metric all the way.

Eventually John and I found a 1962 Mk 2A Austin Healey Sprite - perfect by no means and needing some TLC, but after all that was the whole point.

Already it has been a special experience to use those same tools and Dad's voice is always there helping to remind us of the 'right way to do it'. In a way we are spending that quality time together.

A name for the Sprite was needed, and it was easy: CW after my father - Colin William Pryer.

~ Allan Pryer

Meet 'CW'... the MX-5's

■ Words & photos: John Waldock and Allan Pryer, Hobart Chapter



So, here are some thoughts and comments on the similarity and differences between the Sprite and our MX-5 NAs. We have only owned the little guy for two months and neither of us fully has the "feel" of the car yet, so bear with us if we seem a little tentative on some aspects of its performance.

The Sprite was always meant to be the sports car for the Man in the Street. In essence, like the MX-5, it was intended to give a sporty feel without raw power; a lightweight car that is nimble and fun. The Mark IIA Sprite has an 1100cc engine, based on the A series motor which powered monsters like ... the Morris Minor and Morris Mini.

The motor is simple and luckily, parts are readily available. So, like the MX-5, the Sprite is relatively low-powered (in this case 56 HP) but, due to its low weight (around 710kg), it has a nimble feel on the road. Having a small motor the Sprite does have good fuel economy, around 40 mpg in old speak (about 7 litres/100km). This compares very favourably to the MX-5 but, considering the power advantage the MX-5 has, it highlights the advances in engine technology that have occurred since the early 1950s when the A series motor first appeared.

The car's weight is distributed 52/48 front to rear, which produces good balance and allows the car to come alive on a winding road. The Sprite boasts front disc brakes and rear drums, but no power assist, so braking in the Sprite is very much about using the down shift as an assistant. The gear box is four-speed, with no syncromesh in first gear, which makes city

driving very interesting!

So to outward appearances, the Sprite kind of looks like the MX-5's grandfather. They both share a two-seat, open-top layout, front-engined rear-wheel drive.

But look more closely and you will spot the difference that 27 years can make.

The Sprite has no seat belts – the preferred option if the car began to roll was to **jump out!** The seats are low bucket seats and, while quite comfortable, offer no head protection at all. Anyone for whiplash?

The dashboard is quite simple, and it looks like designers of the MX-5 and the Sprite shared the same philosophy: only give the driver what he/she needs. There are no extraneous 'bells and whistles' on either dash. A quirky feature on the Sprite's dash is the indicator, operated by a single switch located in the centre of the dash, so if your co pilot is bored you can get them to do the indicating! No automatic re-centering of the indicator either, so don't go to sleep or cars following will be very confused.



The rear vision mirror is mounted on top of the dash, which also gives the Sprite a feeling of age and tradition. It sounds different, but doesn't take much getting used to. CW is started by a pull-out button, kind of an early version of the start button that seems to be appearing

grandfather?

in some modern vehicles nowadays. Everything old is new again perhaps?

The Sprite has a normal sized spare wheel, 13" diameter rim with fairly narrow tyres. The tyres provide enough grip, but compared to the MX-5 the Sprite feels a little light in the rear end, perhaps a little twitchy at times, which is more than likely due to the live rear axle and quarter elliptical springs. Adequate, but not as sure-footed as the MX-5 with its double wishbone suspension.

The Sprite has a soft top like the MX-5, and also a tonneau which can be fitted to save erecting the soft top. Raising the soft top is not like the 10-second job we have with our MX-5s ... you have to erect a support bar which runs behind the seats, then clip the rear of the top to the rear deck, then attach the eyelets along each side and across the top of the wind shield. It takes about five minutes, which is fine, but it does mean planning ahead if you see dark clouds in the sky. Word of mouth says that the top is also not very weatherproof (not words to inspire confidence in a Tasmanian!).



CW does not have a conventional windscreen, as a previous owner removed the windscreen (which is in the shed!) and fitted two small air shields which give the Sprite the feeling of a '30s car, but don't provide much protection from the wind. Even on nice days the driver does get a bit of a buffeting when driving over 70 km/h, which can be a bracing experience. We might have to get ourselves some driving goggles to keep the wind out of our eyes. The Mk 2 Sprite doesn't have wind-up windows, instead having two aluminium frames with perspex windows which slide to open. These two frames are attached to the car with two large bolts, which allow the frames to be removed when required. It's interesting to note that reports from the time say that when the Mk 3 came out with wind-up windows, some English purists felt it was no longer a proper sports car.

Finally, we will mention maintenance. Like all senior citizens, lots of things need care and monitoring in the Sprite. Oil needs to be watched carefully, as the engine is pretty unforgiving when levels are low. Under the bonnet, there is a lot

more space than in the MX-5 and the systems are much easier to follow visually. There is certainly a lot less electronics under there The car has three fuses overall, which gives you some idea of how simple the electronics are.

Our Sprite has

been resprayed at some point and has a small amount of rust, which is on the 'to do' list for our repairs. The Sprite was not originally given modern rust proofing and English versions are very likely to have mild to serious rust unless they have been restored or carefully maintained. Luckily our car was assembled in Australia and hasn't seen the same salted roads as his English cousins.

Currently, the engine and gearbox are out of CW as he was blowing some smoke and there was a small problem with the exhaust manifold. We have decided to take the block to a Mini specialist, perhaps to have it rebored if needed, but at least to look at the bottom end and the pistons/rings. The engine was relatively simple to remove, though we don't want to suggest its an easy job – just straight forward.

We also wanted to have a really good look at the qearbox, as there is a tendency to jump out of first gear when revved. We will likely replace the clutch plate and look at thrust bearings etc since it's easy to do with the gearbox out of the car.

CW is also having problems with overheating, and so we will be checking the cooling system ... mainly things like the cooling channels in the engine as the radiator doesn't look too bad. We also have to change the steering boots and check the rack and pinion, as there is also some wear in that area. And we will be checking the brake lines and the rear drums as there is some errant fluid in that area as well ...

Living with a Sprite will be quite different from the MX-5. The MX-5 is very much a jump-in-and-go car, and over the five years that Allan and I have each owned an NA we have had a few normal mechanical issues – but nothing outstanding – and, considering its age, we have found the MX-5 to be a remarkably reliable car to

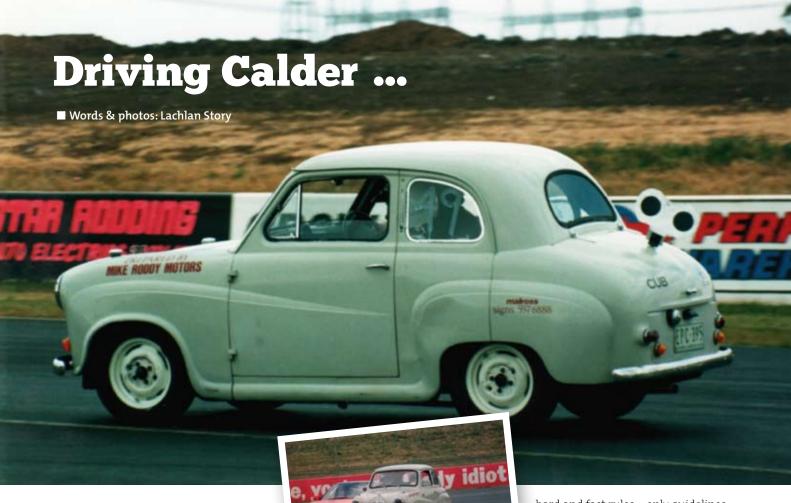


and drive daily.

The Sprite does seem to have more of a mind of its own. You do need to warm up the engine and give the carburettors time to get working properly. The engine will wear more quickly – that's just the way they are – so we will be more mindful of engine revs when driving, as well as the use of the clutch and brakes. Given CW's age, we will have to keep a close eye on everything to do with the Sprite. However. having now pulled out the engine and gearbox, our general impression is that while more ongoing maintenance will occur than for our MX-5s, it is easier to access the motor and some tasks are very doable for the amateur mechanic (with the right instruction manuals, and a friend at the end of the phone when things go wrong!).

Overall, the Sprite does the same task as an MX-5. It's a lot of fun to drive - just looking at the car brings a smile to our faces every time, even if it's a chuckle about how small it looks compared to the MX-5 (comments from family and friends about pedal cars are still being bandied about).

It's a much simpler car mechanically and driving it does make us feel connected to the "glory days" of European light sports cars. The gauges are all cable-driven, so have that old-fashioned doubt about their accuracy which helps to create the feeling of another time and place. It is more work to drive the Sprite than the MX-5, the driver having to be more alert as the brakes are not quite as sharp as in its "grandson". It's not overpowered, so in a sense the challenge is about being smooth and accurate when the car is driven on a winding road, timing the braking and gear changes to keep the engine revving and the car under some kind of momentum. ■



I will preface this piece by stating that I have never driven an MX-5 around Calder, something I hope to remedy soon.

I have, however, punted various other vehicles around this excellent track, varying from an Austin A 30 to a sevenlitre V12 Lister Jaquar. It is a fast and, if driven properly, safe and exciting track. I am not a professional driver, but I drive for fun and I have picked up a bit from some seriously good drivers.

Calder is so named because if it is going to be cold, it will be colder there than anywhere else on the planet, with the possible exception of Ballarat and the sub-Antarctic continent. Also if it is going to rain it will rain there. I can recall a number of events where rain was driven sideways by a demonic wind.

Navigating the track depends on what vehicle you are driving. I can say with absolute authority that driving an Austin A 30 (803cc's of raw power) around Calder is somewhat different from driving that V12 Jaguar on that same track. (No less exciting ... maybe more so!) I have a photograph of my A 30 entering the main straight with the driver's front wheel inches off the ground and the drink-driving "You're a bloody idiot" advertisement in the background.

I have also raced a Moke which, while it performed well on the tight Winton track, was hopelessly outclassed at Calder where it failed to take a corner and ended up beside the track looking like a ruptured ferret. (Notice I said "it", not "I". Terminology is SO important in punting around a track!)

I love Calder because you can go fast enough to know how fast your car is and, at the same time, find out how well your car handles in tight circumstances.

The secret to this track is to be smooth.

It is great to accelerate hard and brake hard but on this track it will cost you time. If you brake at the right place and therefore take the corner faster your overall times will improve. Simple (yeah right, simple if you know how!). I love watching the really good drivers who all seem to be driving slower than anyone else but it is "smooth" not "slow" and their times are invariably faster.

Enough of that for now. I will cruise you through the track and explain (in my opinion) the best way to maximise safely – your car's the abilities. I say in my opinion because you can always learn more from other drivers. There are no

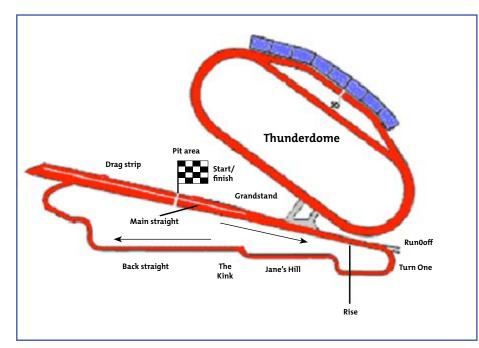
hard and fast rules - only quidelines.

Right from the start, the aim is to get from the start/finish line to the start/finish line with your car in one piece and your sanity intact ... and hopefully with a respectable time to your credit.

From the start grid, halfway down the front or "main" straight, we drive flat out to the first turn. Some treat this 180° sweeper as two turns, but it should be treated as a single sweeping turn if you are to take full advantage of it. For this turn, as you come over a slight rise in the straight, you are about 200 metres from the turn. Depending on the car you should start braking here. Enter the curve later and exit later, thus enabling you to treat it as one corner rather than two, washing off less speed and exiting much faster and better placed for the following turn. Remember: the more speed you lose, the harder you have to pedal to it make up.

After the late apex on Turn 1, you accelerate up a short flat straight. Stay wide, and enter Turn 2 late so that you can stay wide for the left-hander that leads into a short uphill section known as Jane's Hill. (Bob Jane had to buy a whole race track to have a hill named after him!) Crest his rise in the middle and on the downhill run, move left in anticipation of the approaching right/left chicane.

As you crest Jane's Hill you are entering the right/left chicane. This is known as "The Kink" (or "Oh S-t" Corner). I like to



wait until I can see "between the legs" (or daylight) before clipping the two apexes. This gives you more momentum as you fly into the back straight.

It is important here not to give the car full power too early because, with the combination of centrifugal force and the camber, you can drift too much to the right and end up with your right wheels on the grass. This can end in disaster following one's automatic over-correction and the possibility of spinning off and hitting the wall to the left. I can assure you that it does not matter how hard you hit this wall ... it will not shift! Actually, this is no joke, as I have seen some very experienced drivers come unstuck here and hit that wall very, very hard. Hitting that wall, even slightly, will always end in tears. The lesson here? Keep your wheels on the black stuff! More than once I have felt all the weight come off the springs of my black Jaquar track car, and that feeling of weightlessness and lack of control is cause for the feeling that you may be about to make an involuntary body motion.

Once out of the "kink" it is pedal-to-themetal down the back straight leading up to the right hand turn. Stay high on the track for the left hander to follow and allow the car to drift out into the right hand curve leading into the main

straight. I can remember being flagged in these corners when in my A 30. "Do Not Overtake in Turns". Like, just who was I going to overtake?? At the point when the right-hand curve meets the front straight and you are already accelerating fast, it is wise to remember that you are entering the straight about half way along the drag strip. The problem with this is that, if it is wet or even damp, the black sticky stuff they use on the track for drags takes on the properties of black ice and you can immediately lose traction with the "G" forces trying to make your bum overtake your nose. I have personally conducted pirouettes on this corner that the Russian Ballet would be proud of. This is OK if you spin towards the grass but can be somewhat unfortunate if you spin towards the wall. Obviously no spin at all is the preferred outcome.

As this is a tightening radius righthander, allow the car to drift to the outside of the straight then, once safely back on the front straight, it is flat-strap again past the start/finish line and do it all over again. Stay a little left of centre and as you approach the rise again then allow the car to drift a little more to the





If you feel that you cannot make the corner there is a "run off" at the end of the straight but it is gated and I have only seen the gate open once. Not a good option. I entered this corner in the A 30 trying to wash off speed from 75mph (not a bad effort for the little car, bouncing valves in top, and not just a bit scary) and found that I had brake-fade on the first application and no brakes on the second. She went round the 180, but I am blowed if I know how.

Now to gearing. As I have never had an MX-5 on Calder I cannot say 3rd here or 4th there, but what I can say is that wherever possible keep your revs up to the point where the car will respond at its quickest. I would suggest 3200 to 3500 (in a stock standard five-speed manual MX-5) going into a corner so you have the ability to accelerate fast out of it. If you find that your revs are dropping, select a lower gear to bring you back into that power band. If you maintain this you will have much more control over your car. Remember that if you do have to change down, do it before you commence your turn as there is nothing worse than struggling with the selector, having no power and trying to navigate the corner at the same time. After a few laps you will know instinctively what gear you should be in and how many revs you should be maintaining.

To summarise, try to drive the track within these guidelines and then adapt them to what suits your style of driving. What I have described is how the faster drivers approach this track. I feel that if they are faster than me then maybe I should watch what they do and then emulate it. It is so easy to get off on the adrenalin and push too hard (I should know, I am an adrenalin junkie). Be aware of your limitations and those of your car and then let the endorphins go.

If you are trying this, or any other track, for the first time, find someone who has experience on the track and have them talk you round it from the passenger seat. I can assure you they are only too happy to assist if asked. This is one of the best ways I know of finding out what you really can do.

I guess that this track is one you can learn in an hour and take a lifetime to master.

As they say, you will never, never know if you don't give it a go! ■

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■ Club sponsor's editorial

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While Shannons initially specialised in Classic car insurance, the company today has broadened its focus to recognise that everyone who cares for their vehicle – whether it be a show winning or club-spec MX-5, or the CX7 they drive daily – is a motoring enthusiast and therefore deserves special attention. The portfolio of insurance products has also broadened considerably and Shannons now also offer home insurance that includes \$10,000 of enthusiasts' cover for items in your garage at no extra cost.

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The MX-5 Club Grill

Introducing ...

Lindy Anderson 2009-10 Standard NC Champion

Name? Lindy Anderson (Jane is the middle

Age? Six decades on 11 January, 2011 Born? Yes! Sydney. Australian mother / Hungarian father

Current abode? Surrey Hills, Melbourne

Profession? Currently Sessional Teacher for Swinburne University and previously: Nurse/Medical Rep/Business Owner/Early Childhood Professional

Partner? Nearly 40 years married to the ever-tolerant Murray. He is my pit crew when at the track

Pets? Have had turtles, fish, cats currently we have two cats, Max (black and white) and Ginger Meggs (quess the colour!)

Fave food? Seafood, Japanese, Hungarian, Italian, Spanish – hey, I'm an international woman!

Can you cook? I like to think so ...

Favourite tipple? Champagne, all wines, some spirits etc etc etc

First drive? In mum's Fiat at 16 (and flew boyfriend's plane at 18)

First car? White Morris 1100, pale blue bench seats and whitewall tyres - CLASSY!

First fender bender? Mum's Fiat at 16. At least I didn't crash the boyfriend's plane!

Everyday driver? *Drive the MX-5 daily*

Current MX-5? True Red 2006 NC Coupe called Amelia II

MX-5 improvements? Cobra race seat, six-point RPM harness with custom-built harness bar and seat bracket, accelerator pedal extension, Remus mufflers and tail pipes



MX-5 dislikes? Lack of storage areas and bins. Too many drink holders. Bose sound system has always had problems – other than that, she's perfect!!!!

Why an MX-5? Reputation, handling (we love corners), been driving topless for over 18 years now so love the push-button ease for conversion from lid to lidless!

Fluffy dice? I'm not that classy!

Passions besides the MX-5? Family, friends, motor sport of all types, trekking, bike riding, music, theatre, reading, singing in a big choir

Favourite TV show / movie / book?

Movie: "Hope and Glory"; TV shows: "The Sopranos" and "Dexter"; Book: "Divine Secrets of the Ya-Ya Sisterhood" by Rebecca Wells

Dream wheels (money no object)? Mercedes SLK 350

Would you drive a Daewoo or **SsangYong?** Are you serious?

Favourite other Mazda? RX-8

How long in the Club? Only one year but what a big one!!

How many MX-5 Club runs? None so far!! Joined the Club initially for the motor sport and love the friendships made, support and wonderful club atmosphere on track days. I now also plan to join in on the social runs this year ... - as our Club offers such a huge variety of activities, there are always plenty of excuses to get in the car and GO!!

Favourite Club run? See above. I go on lots of drives and times away both in my MX-5 and pillioning on the "Big Banger" (Honda VTR 1000 Firestorm motor bike – not the husband!) and our motor bike group. Recently in the MX-5 did Orbost to Cooma, always love the Black Spur, up to Mt Baw Baw for coffee, Reefton Spur, Corryong to Cabramurra – all great roads for curves and wonderful country scenery

Funniest thing seen on a Club run? Tell you when it happens

Done DECA? This is the year and June is the month

If yes, how many times? Will be one after

Ford vs Holden? Who gives a toss? Ford, of course

What's playing in your MX-5? Jason Mraz, LIOR, Josh Groban, the 25th Annual Putnam County Spelling Bee, Avenue Q

Footy team (AFL/NRL/Soccer)? Prefer Rugby Union (two out of our three grown up kids play) and when AFL – go the Tiges!!



If not a Mazda (qasp!) what? MGTF 1500; Sprite Mk 1 the "bug-eye Sprite", Audi TT (love it!) and would love to drive any Clubman

Chapter news ...

The Presidential Tour of Northern Tasmania

~ 21-22.1.2011 | Northern Tassie

■ Words: Ken & Ruth Beaton ■ Run organiser: Ken Beaton ■ Photos: Bruce Harvey, Rob Bryan, Alyssa Finlay

On Friday, 21 January, the Club President, Murray Finlay and the First Lady Alyssa arrived by air into Devonport where they were met by the Governor (sorry, Convenor), Ken Beaton and the Lady Ruth.

After some initial confusion the proper protocol was observed and the official party set off for a quick tour of Devonport on the way to Beaton House, the official residence of the Governor (sorry again ... Convenor).

A drive led by Lyn Dunham and Ken, accompanied by Bruce and Cheryl, was organised to visit some of the back blocks of NW Tasmania. The little group of three MX-5s set off to drive the roads of the Nook, Preston and Ulverstone, finishing at the Forth Hotel two hours later. Here they were met by Ruth, Keith and Sandra Tillack, Malcolm and Rita Eastley and Ken Dunham (who had had to earn a living, it was Friday after all). The roads were in only fair condition with some of our favourite areas damaged by floods and some bridges washed away. We all had a big evening meal and retired back to Beaton House for official discussions on future plans for the Club.

Saturday, 22 January turned out to be a glorious summer's day as we left Devonport just after 9am heading to Deloraine by the back roads. The route took in some of our favourite roads which was also appreciated by a couple of our local members who had not travelled on them before.

We arrived at the "50s Diner" in Deloraine, a little late but full of excitement as we just had such a wonderful drive. The Diner is a must-see in Deloraine, not just for the great hot chocolate and coffee, but the terrific craftsmanship of the owner Carl who builds "Hot Rods". He was kind enough to open his work shed to show off his current project. Also he has one car on display in the Diner amongst his '50s collection of

memorabilia. Even the "loos" are an experience!

After breakfast we headed off to Longford to collect a couple more MX-5s and gathered for a short chat. Rob and Trish Bryan lead 14 MX-5s out of Longford on the back way to Campbell Town, where we regrouped before taking a leisurely drive to Ross. On arrival we parked along the river looking onto the famous Ross Bridge. We were joined by the two Johns from Hobart who had arrived to exchange prisoners ... er, I mean collect the President and his missus

After a picnic lunch by the river, it was time to farewell the President as he joined the southern Chapter to head south to Hobart. From here we travelled independently. Tim Manion and Bruce Harvey took the long way home to Georgetown and Launceston via the east coast. These guys just love to drive their cars. Ken Beaton led another six MX-5s on a quick trip the back way to Longford where we relaxed with coffee and drinks out the front of the famous Tassie Longford Bakery.

A great day was had by the Northern Chapter as became evident from the comments around the table.







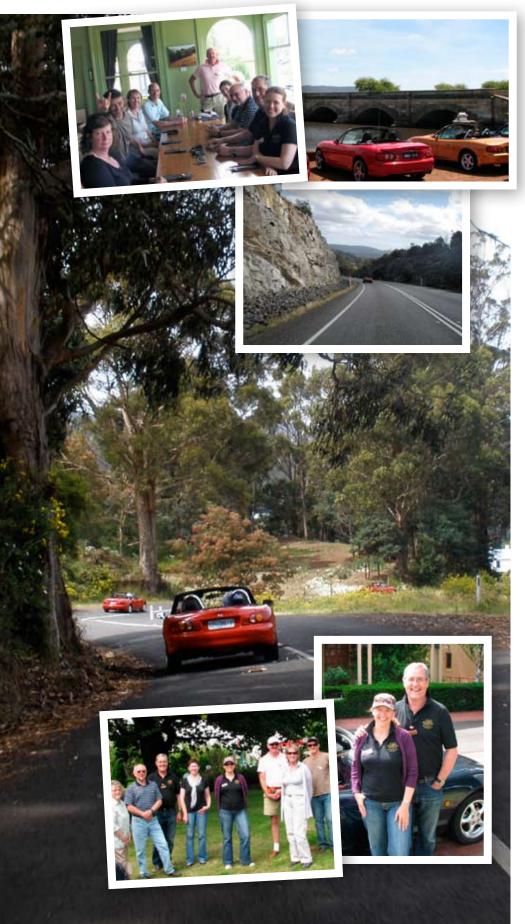




Summer in the southern climes

~ 22-23.1.2011 | Hobart

■ Words: John Waldock ■ Run organiser: John Waldock ■ Photos: John Waldock & Alyssa Finlay



January has been a pretty active month for the Hobart Chapter.

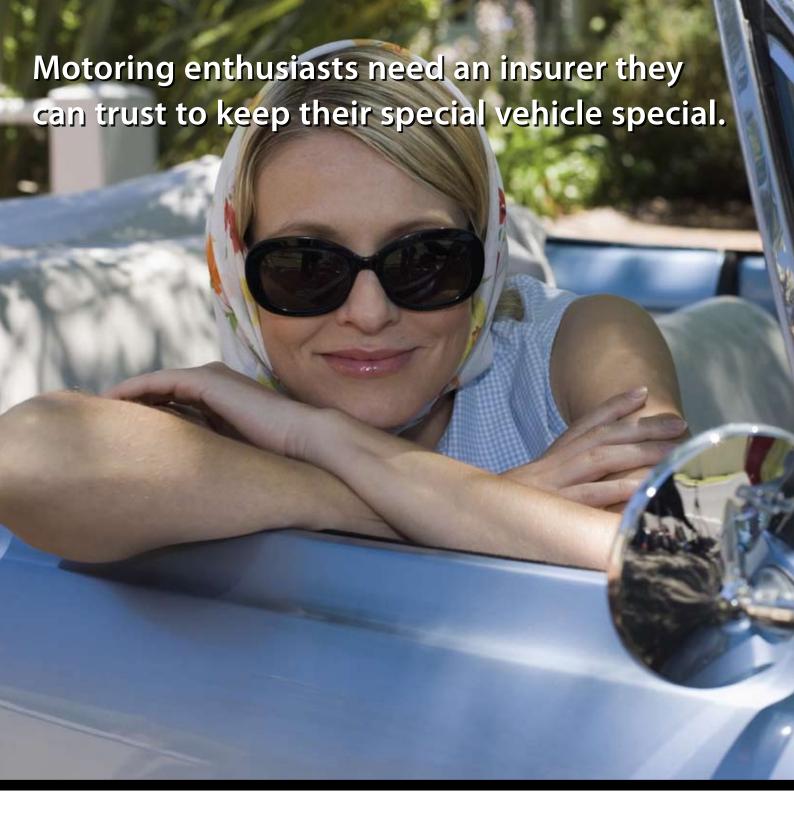
We had our normal January twilight run, which entailed a later start. We drove in a loop via Grass Tree Hill and Richmond, returning via Sorell for dinner down at Mures on the wharf. This was a much more social run, a good opportunity to catch up after the madness of Christmas and begin to make some plans for the Chapter for

Two weeks later saw us meeting up with Murray and Alyssa and the Northern Tasmania Chapter at Ross.in the centre of the eastern side of our state. The weather really was out of the box, and lunching by the river was lovely, surrounded by a superb selection of MX-5s. Its always nice to meet up with the Northern members, a very friendly and interesting group of people for sure. After lunch and a quick look around Ross we gathered up Mr and Mrs President for the drive down to Hobart, via the east coast (Swansea) and Orford. It was a lovely afternoon for it, clear skies and a good winding road allowed us to enjoy the cars and the

We arrived in Hobart for dinner at my place. We had MX-5 models on the table and some nice Tasmanian wine to go with our dinner. It was really nice to be able to spend some time with Murray and Alyssa and have some time to chat.

On Sunday we were up pretty early and off for the drive to Cygnet, as featured in the Club's "20 Roads for 20 Years" book. This drive is special because it features a lot of coastal roads, finishing up with a drive up into the mountains before returning to Hobart. I won't describe it more ... you will have to buy the book!

I would like to finish by thanking Murray and Alyssa for coming down and visiting our Chapter. While I am sure they had an enjoyable time, we all appreciated their patience, as they must have driven about 700km in two days. I think Murray was getting a little white line fever by the end of the trip! ■



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What's stopping you

■ Words: Robert Downes, Club Captain - Motor Sport, with contributions from Matt King



A vehicle's brake system is an extremely important element of its primary safety systems.

It is essential that the braking system performance is maintained at the highest level, irrespective of how hard you drive the car, or the age of the vehicle.

In this article we will be discussing all things brake related, with particular emphasis on the NA and NB models of the MX-5.

The brake system works by transmitting the driver's foot pressure on the brake pedal, through the master cylinder to the brake calipers, in order to clamp the friction material on the brake pads against the metal brake disc rotors. The foot pressure is multiplied by the mechanical pedal ratio and the hydraulic ratio of the master cylinder and booster and the brake caliper pistons. Essentially the moving vehicle's kinetic energy is converted into heat energy in the brake rotors.

Brake Rotor Discs

Despite the 50% front/rear weight distribution of the MX-5, the weight transfer to the front under braking means that those brakes do more work then the rears. Hence front rotor diameter, weight and brake pad surface area are larger than on the rear.

All MX-5s are fitted with what are called "ventilated" front rotors and with solid rear units. Ventilated rotors by virtue of their design induce air to flow out through the opening on the perimeter of the rotor to greatly assist cooling.

Each front rotor on an NA8/NB8A weighs 5kg and the rear units weigh 3kg. The NA6 used smaller rotors, and the NB8B uses larger rotors, and the high mass helps minimise the temperature rise when braking.

Nevertheless it is easily possible to generate some extremely high rotor temperatures under heavy braking. A 1070kg MX-5 can expect the following rotor temperature rise from an initial braking event, but temperatures will be considerably higher on subsequent stops because of the elevated starting temperature.

Starting Speed (kmh)	Final Speed (kmh)	Temp. Rise (°C)
160	120	70
160	100	100
160	80	120
160	60	140
160	40	150
160	0	160

Aftermarket "slotted" ventilated rotors are used by some in our motor sport program. The slots are designed to scrape off water and debris that would prevent the pads clamping the rotor cleanly. They are typically not necessary for cars that do not see the track and indeed are not essential on any lightly modified track MX-5.

Rotor discs wear out and must be replaced periodically. The minimum allowable thickness is usually stamped or cast on the rotor. Discs are made of cast iron and there are few if any direct-replacement "upgrade" rotors available - most do the same job.

Brake Pads

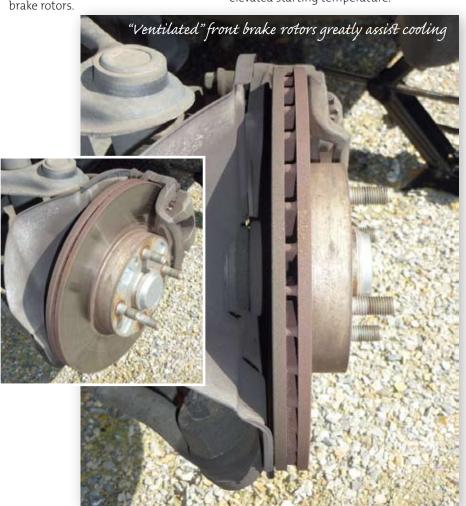
Brake pads are a key element of the brake system, and must be chosen carefully for the intended application. Some selection considerations are: maximum operating temperature, co-efficient of friction when both cold and hot, wear rate, rotor wear, dust generation and cost, amongst others.

Standard pads like the factory ones can overheat if used at the track - when overheated, the coefficient of friction drops dramatically. This results in a hard pedal feel, but the car does not slow down!

Beware that some high performance pads need to be "warm" to operate and are less than effective on the first or second application – not so good for public road use. Race pads also typically cause the rotors to wear much faster when cold, say if used on the road.

Which brake pads to use?

There is a vast range of pads available, and each is a compromise for a particular purpose. No one pad is suitable for all applications. The pads supplied by Mazda dealers as part of your routine service program or through the Spare Parts Dept. will meet all public road use requirements and light track use, as will pads from





What's stopping you?

Bendix and other manufacturers. On our race car we use either QFM A1R1 or Hawke HP+, which are also suitable for some road use.

Due to their small size and weight, brake pads are ideal to purchase over the internet from the USA. You can discuss pad selection with members of the Club.

Brake Fluid

Brake fluid is possibly the most neglected component of any car maintenance program. When fresh, all brake fluids are virtually incompressible and the system works as its mechanical and hydraulic design allows. However, there are a couple of important issues.

- (a) Overheated brake fluid can (and will) boil in the caliper and as with any boiling fluid, gas bubbles are produced. This gas is compressible and leads to a "soft" brake pedal with long travel and ineffective brakes. We have already noted that substantial rotor temperature increases can be generated from a single brake application.
- (b) All brake fluids absorb moisture from the atmosphere relatively quickly regardless of use and this dramatically reduces the boiling point of the brake fluid. As water content in the fluid increases so the boiling point decreases, with the increased likelihood of creating vapour in the caliper and wheel cylinder and hence ineffective brakes.

Brake fluids are classified by the USA Department of Transport as **DOT 3** or **DOT 4**.

In comparing various brake fluids, the Dry Boiling Point at 0% water content and the Wet Boiling Point at 3.7% are commonly used. The table below shows the "MINIMUM" dry and wet boiling points.

	DOT 3	DOT 4
Dry BP (°C)	205	230
Wet BP (°C)	140	155

DOT 3 and DOT 4 brake fluids are compatible with each other and may be interchanged or mixed with no ill effects. DOT 5 fluid is silicone based and not compatible with the brake system of the MX-5. Some fluids are labelled DOT 5.1

and these are compatible, however the whole system should be flushed, not just topped up before using DOT 5.1 fluid.

The following table shows the typical Brake Fluid Boiling Point (BP) vs % Water Content for both DOT 3 and DOT 4 brake fluid.

Moisture Content	DOT 3 BP	DOT 4 BP
0%	252	276
1%	218	237
2%	182	204
3%	160	180
4%	137	163
5%	129	149
6%	126	138
7%	121	135

Field tests in the USA show that the average 12 months old car has 2% moisture. Furthermore, there was an average water content of 2.6% in cars with an average age of eight years — indeed 25% of these had over 4%.

Brake fluid is corrosive to paint, so take care handling it and, if you spill any, wash it off immediately (but don't let water get into the system!).

Which Brake Fluid to Use?

For normal use any DOT 3 or DOT 4 fluid should be suitable provided it is replaced every 12 months. Only buy the small 500mL containers. Beware – some brake fluids are obscenely expensive. On the

race car, we use Penrite SIN brake fluid (\$20 for 500mL at Repco) with Dry BP of 310°C and Wet BP of 198°C.

Just remember, that no matter how good the brake fluid is, it will absorb moisture and require regular replacement. How regular will depend upon the use of your car (road, road and track, track) and the feel of the brake pedal under heavy braking.

Brake Calipers

The calipers are the "claws" over the rotor – they hold the pads in place and have a hydraulic cylinder that clamps the pad to the rotor.

The MX-5 uses a "single piston" caliper design, which pushes the inside pad onto the rotor. The caliper is mounted on slider pins, which allow the caliper to move, causing the "claws" to pull the outside pad onto the rotor also.

If the slider pins are not well lubricated, brake performance will be reduced because the outside pad will not be pulled in properly – the inside pad will do all the work, will wear faster than the outside pad, and can possibly overheat and fade.

The rear caliper also contains a special self-adjusting mechanism for the handbrake that compensates for pad wear. You need to manually wind this mechanism back when installing new, thicker, brake pads. This mechanism can occasionally fail, resulting in ineffective rear brakes and difficulty changing pads.

Brake Proportioning

Because weight transfers to the front under deceleration, the front brakes

need to do more work than the rears. How much more depends on how fast you decelerate. To prevent the rear brakes from locking up (which results in an uncontrollable skid), the brake force going to them must be progressively reduced the harder you brake. This is called





proportioning. For optimum braking performance, both the front and rear brakes should be at the limit of lockup, but this varies depending on the amount of grip you have on the road.

Next to the brake master cylinder (of non-ABS cars) is a small valve called a proportioning valve. This progressively reduces the hydraulic pressure to the rear brakes as you brake harder. This valve rarely has problems. ABS-equipped cars do not use mechanical proportioning; they rely on the electronics of the ABS system to limit the rear pressure as required.

ABS

ABS stands for "anti-lock braking system" and has been fitted standard to all MX-5s from and including the 2000 NB8B model. Sensors on each wheel detect when that wheel is about to stop rotating and a microprocessor tells the brakes to ease off and re-apply several times each second to achieve optimum braking. The driver can simply "jam on the brakes" without fear of locking up the wheels, even if the wheels are on different surfaces. Importantly, it enables the driver to still steer the car unlike when the front brakes/wheels are "locked up". When ABS activates, it causes a rapid pulsing sensation through the brake pedal – this is normal, and you should not ease off the pedal if you feel this!

Brake Lines and Caliper Seals

With some MX-5s already celebrating their 21st birthday and many being over 10 years old it may be time to consider replacing the flexible brake lines and shouting your car a new set of caliper seals. Our race car has ADR-compliant "braided brake lines" and new brake caliper seals fitted, not for a performance advantage but to ensure the system works efficiently and for "peace of mind".

Bedding In

Bedding in is the process of conforming new pads and/or rotors to each other. This must be done correctly and carefully as braking performance will not be optimal until the process is completed. Typically the process involves heating up the pads progressively with a number of slow-downs, followed by a cooling down period.

New pads usually come with instructions on bedding in; otherwise you should refer to the manufacturer or your mechanic for advice. Be aware that brakes that have not been bedded in may fade suddenly if overheated!

Upgrades

The brake systems on NA and NB models are interchangeable as a complete set, so if you have an early car and want to upgrade you can install the calipers, mounting brackets, and rotors from a later model. The NC uses different brakes that are not interchangeable.

The proportioning valve can be upgraded to later model variants that have more rear bias, or aftermarket adjustable versions, to make the best use of the rear brakes.

Many other aftermarket upgrades are

possible, the limit is only your wallet! Any brake system changes should be tested carefully to ensure correct operation.

DIY Brakes ???

Unless you are sure of your ability to work on brake systems, this work is best left to your "professional mechanical service provider".

Brake System Faults and Troubleshooting

There are a few common faults on the MX-5's brake system. Fortunately none is really serious, but as your brakes are so important you or your mechanic should investigate ASAP.

Here are some tips for finding common brake problems:

SYMPTOM	POSSIBLE CAUSE	SOLUTION	
Loud squealing	Brake pads are fully worn and the squealer bracket is rubbing on the rotor.	Replace brake pads.	
Hard pedal feel, but poor braking (on track)	Pads overheated.	Use a higher temperature pad.	
Soft, spongy pedal, goes to floor	Fluid overheated / boiling.	Replace brake fluid.	
Warning light (!)	Handbrake is on.	Check handbrake is off.	
on dashboard is on	Brake fluid level is low.	Check and top up master cylinder reservoir, inspect brake system for leaks.	
Rear pad(s) worn quickly / rear brake stuck on / dragging / overheating	Handbrake adjuster mechanism inside rear caliper is jammed.	Rebuild or replace rear calipers.	
Inside pad wears faster than outside pad, poor braking performance	Slider pins are seizing.	Clean and lubricate sliders with high temperature grease.	
Cannot retract rear caliper	You cannot push the piston back like on the front brakes.	Find and remove the short, unidentified bolt on the inside of the caliper. Retract the caliper using a 4mm hex key in the hole.	
Brakes shudder	"Warped" or uneven rotors.	Have rotors "skimmed" by a professional brake repair shop. Bed in properly. DO NOT apply handbrake when parking after a track session.	
	Flat spot on tyre.	Replace damaged tyre. Rotate flat-spotted tyre to rear axle.	



Check those drainage holes!

■ Words: Murray Finlay ■ Photos: Will Campbell

Is it just me ...? (I bet it's not!)

In all the recent heavy rain, I discovered that I had neglected checking my car's drainage holes during the recent drought years, when car leaks have been the furthest thing from my mind.

How did I discover this? My daughter put a cardigan up on the shelf behind the passenger seat ... when she came to remove it, the cardigan was wringing wet, and it hadn't been raining during the drive ...

When I reached into the corner behind the seat (where the soft top pivots, beside the seatbelt tower), there was a puddle about 10mm deep!

So, what's the cause ... and how do I fix it?

In the MX-5, water from the roof makes its way down through two channels inside the car to get to the ground. It is essential to make sure that these channels are free from any blockages if you want to avoid getting wet or listening to the water slosh up and down the sills and causing them to rust. It is a very simple task – the whole procedure should take no more than a few minutes.

In the NA and NB, the top of the drainage tube is a circular hole about the diameter of a bloke's index finger, situated in the "nook" where the soft top roof hinges on the body. It's right between the seatbelt tower and the car's side bodywork.



However, it's hidden under a small flap of rear sill carpet. To access it easily, you need to fold back this carpet flap.

With the seats tilted forward, unclip the soft top and tilt it back slightly ... enough to allow you to get your hand in behind and around the seatbelt tower so you can lift and fold back this carpet flap.



Once this is done on both sides, fold the soft top down flat so that it will hold both carpet flaps back out of the way.

You should then be able to see the drainage holes.



In the NC, the arrangement is much more civilised, and the rectangular draining hole can be seen clearly behind the seatbelt tower, and accessed very easily.



Once I've found the drainage hole, how do I clean it? There are different opinions ... some suggest using a wire coathanger (straightened of course!), a length of that springy plastic-coated wire used for hanging light curtains, some 10mm poly garden irrigation pipe ... Some even claim that the original metal NA aerial with the knob at the top was designed for exactly this purpose! I used a thin (about 6mm diameter) piece of dowel.

Whatever you use, be gentle! The drainage tube has a flap towards the bottom which is designed to let water drain out beneath the car, but stop dirt (and noise?) getting back up into the car, and you don't want to damage that.

There may be quite a lot of resistance initially as dirt can really cloq up the hole, but repeated prodding will break it up. Repeat the procedure on the other side.

Some owners also clean these drainage tubes from the bottom. The tubes can be seen under the car, protruding from just in front of the rear wheels. Again, be wary of damaging that flap.

At the front of the car ... in my old NA I had to make sure I regularly cleared leaves and sludge from inside the panel at the rear of the front wheel arch. Leaves and debris washed down inside there from the front windscreen drainage channel collected between the metal of the front guard and the plastic lining. I discovered that all this vegetation, dust and dirt began to compost, and was concerned that the wet gunge sitting against the metal would rust the panel.

I admit I haven't yet addressed this in my NB; the plastic wheel arch lining is attached a bit more securely!

Other leaks:

- **side windows:** if water is leaking in near the soft top weather-stripping, try closing the door *after* closing the window. This forces the window to contact the weather-strip differently from when the window is closed after the door is closed.
- where the soft top meets the windshield frame: usually caused by dirty or damaged moldings or the latches not being tight enough. Usually you will notice the top will squeak and rattle if it isn't latched down tight. The NA/NB latches may be adjusted: open the latch and examine the inside. There is a small plastic 'cover' that keeps the latch adjustment screw from moving. Pop the cover off and adjust the screw as needed to get the latches to close smoothly, yet tight enough to keep the top from rattling or leaking. If the latches become difficult to open or close, a small amount of oil on the moving parts should help. Don't over-tighten, as this will make the top difficult to close
- water in the boot: can be caused by one of several factors – dried out weather-stripping around the boot, a cracked rain rail on the convertible top, or dried out weather-stripping around the tail lights (especially on older vehicles).

Sources:

- bitter experience!
- www.mx5ireland.com
- www.pistonheads.co.uk
- http://ox.mx5oc.co.uk/hints tips.htm
- www.miata.net/faq/faq3.html

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