

Cross Flow

www.bendigocarclub.com.au

<http://www.facebook.com/#!/pages/Bendigo-Car-Club/141168312653687>

P.O. Box 361, Bendigo. 3552

General Meetings

1st Thursday of Each Month from 8pm

November 2015

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BENDIGO CAR CLUB

Upcoming events

5 th November	BCC General Meeting	Maiden Gully
8 th November	BCC Khanacross/Motorkhana	Bagshot
13 th November	BCC Pizza and BYO Night	Maiden Gully
29 th November	BCC Junior Development day	Bagshot
29 th November	BCC Test 'n' Tune Day	Bagshot
5 th December	BCC Presentation Evening	Maiden Gully

Bendigo Car Club Office Bearers 2014-2015

President:	Mick Elvey	Ph 0428 506492
Vice President:	Darden Brown	
Secretary	David Dixon	Ph 0416 219195
Assist Secretary	Daniel Rossi	
Treasurer:	Glenyce Coombs	
Assistant Treasurer:	Craig Hardiman	
Membership Sec':	Glenyce Coombs	Ph 0407 330957
Property Officer:	Mick Elvey	Ph 0428 506492
Regular Members:	Kevin Symons, Jim Coombs, Peter Valentine, Craig Button, Brad Hall, Robert Andre	
Facilities Maintenance Coordinator	Mick Elvey	Ph 0428 506492

Presidents Report.

Well were at the end of our club championship our next event on the 8th Nov is our last round. So let's all be there bright and early.

Congratulations to Scott and Renee Innes on the safe arrival of a baby boy. (he comes with 9 air bags) just kidding congratulations. That makes one of each now.

Mt Tarrengower was well run by all officials, we had a great roll up we even had three junior officials, Adam Button, Peter Hume and Michael Flynn well done to all officials.

Even our club steward sat down in a nice shady spot and ate all the ice cream from the van.

Our junior training day on Nov 29th is well on track, so if you would like to learn something it is wise for all juniors to turn up for the Junior Training Day. There is an article on suspension set up in the Crossflow by Robert Andre.

Thank you to Scott Innes for his sponsorship of Mt Tarrengower and his help on the weekend. Without people like Scott these events do not happen.

Also a big thank you to Peter Valentine and the Mt Tarrengower committee a job well done by all.

Mick Elvey
President

Keep your eyes open for us

After all the hard work on the gate at Mt Tarrengower ie: John Hardiman, Des Heagney and Barry Farnell. The boys packed up all the equipment at about 2:30 and left our shelter there to be picked up at the end of the day as has been done in previous years.

Someone has packed it up with their equipment and taken it home. If you have the shelter amongst your equipment by mistake can it please be returned to the clubrooms. It has Bendigo Car Club on it and some other numbers stamped on it that only two people know about, so if you have any doubts they will be able to verify it. So please keep an eye out as it belongs to YOU the members of the club.

If it isn't returned and just stolen you are low life scum we worked hard to get our equipment and no good will come to you.

BCC JUNIORS CARS

We need somebody to look after the club cars on event days please. Contact Mick Elvey on 0428506492 if you can assist thank you
At the July BCC General Meeting a motion was passed to restrict the use of the club's automatic junior cars to the motorkhana part of the day. This has been brought about because of the need to preserve these vehicles for young novice juniors in their first few events. If a junior wishes to progress from motorkhana to khanacross they are highly encouraged to use a manual, if this is not possible they can apply to the director of the day for use of the automatic, this will only be given in special circumstances



PIZZA & BYO NIGHT

Friday the 13th November

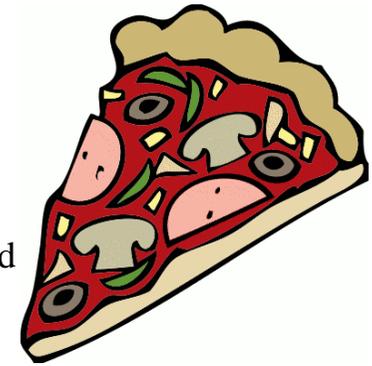
Pizza and BYO night at the club rooms for members and their Families also all the officials that helped out at the Easter saleyards and Mt Tarrengower.

6.00 pm

You must **TEXT** Craig Hardiman (0419 009072) with your number of people so he can order the pizzas. Please don't just turn up without letting us know.

TEXT 0419009072

P.S wear something **BLACK**



BCC Presentation night

5th Dec at the club rooms 6:30pm sharp.

There will be a 2 course meal.

Main: a roast and vegies: choice of 3 meats

Choice of 3 sweets: not all of them at once.

Price will be \$12 for adults and \$6 for juniors 12years and over.

R.S.V.P by the 20th November

Contact Craig Button on 0427511158

or Glenyce Coomb on 0407330957



CLUB MEMBERSHIP FEES

The current membership fees for the Bendigo Car Club are as follows:

Full (adult) \$90

Junior \$40

Family, one full membership plus \$30 for each extra family member.

There is also now the option of direct deposit for payment of membership fees, details of which are on the application/renewal forms.

VICROADS CLUB PERMIT SCHEME

As of the 1 February VicRoads have changed the requirements associated with the Club Permit Scheme, these new requirements can be found on the VicRoads website <https://www.vicroads.vic.gov.au/registration/limited-use-permits/club-permit-scheme>

With the VicRoads requirements in mind the BCC committee have reviewed the club's CPS requirements, below is an overview what is now required, the VicRoads requirements will also need to be read in conjunction.

- Full Roadworthy for all new applications. (post 1948)
- All new applications will need to supply a set of dated photos for future reference to the Club Permit Scheme (CPS) Officer. (See below)
- All renewals for the next 12 months must also supply same photos as above.
- All Applications and Renewals to be processed at BCC General Meetings or at a Committee Meeting by appointment, owner must bring vehicle to the meeting where CPS Officer will review the supplied photos against the CPS vehicle, before signing the renewal.
- A copy of all permits/photos/etc will be kept in a locked cabinet at the BCC clubrooms, there will be three (3) authorised signatories, who will have access to this cabinet.
- There will no longer be an annual inspection unless the CPS Officer believes the vehicle has been modified beyond the requirements of the CPS scheme or the vehicle appears to be in an unacceptable standard of condition for a Club permit.
- For all New Applicants they must be a member for at least 6 months and attend at least one BCC General Meeting and one BCC event as a competitor or official, prior to applying for a Club permit.
- Permit holders must still attend at least 2 BCC General Meetings and 2 BCC Events during the permit year before the CPS officer will sign off the CPS Renewal.

Photo requirements are as follows, all photos to be dated and verified.

- Front View.
- Drivers Side, door closed.
- Rear View.
- Driving Position, side view with driver's door open.
- Engine Bay
- Where possible, Identifiers such as, Chassis and or Engine No's.
- Other photos may be requested by the CPS officer.

Contact List

The Bendigo Car Club is a multi-disciplined motorsport club that gives its members the opportunity to compete in a wide range of activities. Below is a list of members who can be contacted in regard to specific disciplines of motorsport. It is also hoped that each month a list of upcoming events that our members are travelling to will be listed so that other members can go along and support their efforts.

Motorkhana	Brian Shanahan
Khanacross/Autocross	Mick Elvey
Rally	Murray Mackenzie Tony Moore
Off Road	Craig Button Ken Holt
Bitumen Sprints/ Circuit	David Dixon Roger Hall
Officiating	Peter Valentine
Vicroads Club Permit Scheme	John Orr Craig Button Mick Elvey

Address updating

If you move house or change email address could you please let us know so we can keep you informed and up to date.

Postal address updates can be done by contacting Glenyce Holt.

Email address updates to enquires@bendigocarclub.com.au

RACE CAR SETUP BASICS FOR JUNIORS (AND DADS)

By Robert Andre, BCC Committee Member

Robert is a qualified race car engineer (Dip. Engineering/Dip. Motorsport) with over 15 years' experience in the field. He has worked with companies such as Meridian Motorsport, PRB Australia, Anglo Australian Motorsport, Bolwell Cars and Evans Motorsport. Experience includes V8 Supercars, Formula Ford, Sports Racer/LMP, tarmac rally car preparation, Sports Sedan and off roader buggy fabrication. He is still alive after re-welding many used Ferrari fuel tanks.

BASICS

The right car. Choosing the right car to prepare and race, or whether you should actually be racing is the first battle. Often the car handed to a junior is more often than not a 'hand me down' or a cheapy. Time and money are largely the deciding factors when buying and building a car, but something relatively new and "setup" for racing is the easiest place to start. Whilst '70's rally type cars are pretty cool and great fun to drive, sadly a late '90's FWD car is probably going to be safer, faster and have a lot less rust. Parts for newer cars are also easier to come by. Wreckers tend to have less interest in old cars as the core of their business is parts for common everyday cars. Finding a suitable car that can be easily "upgraded" is a great place to start. Consider what CAMS approved bolt in roll cages are available for certain model cars may mean that you can have excellent levels of safety on a club level budget. For example, a junior may do well to find a cheap non turbo Subaru Impreza for \$1500 and fit a bolt in roll cage from a WRX owner who is upgrading to a complete National level chro-moly weld in cage. With a bit of luck, the entrepreneurial kid may even talk the WRX owner in parting with the standard WRX seats which are going to offer superior support over stock seats.

Today rallying an AU Falcon at club level might actually be more practical, cheaper and just as "fun" as say a RWD English Ford due to parts availability and rarity. Perhaps consider the class you want to run in and go from there.

SETUP

TYRES

Tyres are the only thing between you and the ground. Here, a set of second hand rally tyres with some very selective re-grooving to bring them back to life can offer awesome bang for bucks. A cheap option might be certain used commercial or lower profile off road/snow type tyres.

LOWERING YOUR CAR

Generally most cars should not be lowered much more than what the factor offers. For example, a Ford Falcon should not be lowered much more than say a XR8 or FPV vehicle. Why? Because the suspension is designed to work best at a certain ride height, generally the factory ride height of the base model. As the suspension goes into more extreme compression (or droop) things begin to become very compromised as it is now out of its normal range of happy operation. We occasionally hear of a car dropped on its guts with remarks by its owner that its handling is 'better', but often this is only because the suspension no longer actually works and it is effectively a go kart. Often the said car had such poor suspension design to start with that by not letting it work was an improvement. Such cars are useless once they meet a bump bigger than a pebble, so again useless for a club car, particularly on dirt.

As a general guide, for example, avoid King Springs 'Super Lows' for racing use without lots of other corrective suspension modifications. For the average car 'Lows' are pretty much perfect and will offer good ground clearance over bumps. Keep your ride height sensible and always do/get an alignment after lowering to make sure things are where they should be.

SPRING RATES

For rally type driving, we want to avoid very stiff springs as the car will tend to become skittish. Again we don't want to go a great deal much stiffer than say a factory spec sports spring, and again for example a Falcon wouldn't want to have a rate much stiffer than an FPV or XR8, or an Impreza a great deal much stiffer than a STi. A rally setup is not that dissimilar to a 'wet' circuit car setup in that grip is reduced by a slippery surface. Weight transfer needs to be progressive onto the loaded tyres to avoid braking traction.

SHOCKS

Often cheap, shiny coilovers found online are just that – cheap and shiny. The shock used inside the coilover, even though they are apparently adjustable, are often inferior to the factory shock. They often have a nasty tendency to break/snap too. An aftermarket non-adjustable spring and shock are often better than the no name coilovers.

Unfortunately, money often does buy you the best when it comes to shocks, but a great option at the affordable end of the market is the Bilstein monotube. Their monotube dampers for sports cars are generally steel bodied units/inserts, but the internals within and general design are not really that different to shocks worth four times the amount. The insert type Bilstein' are often non-adjustable, but for the junior this is probably a good thing as it is one less thing to worry about or get wrong. These units are also rebuildable and the internal valving can be changed when apart if a different setup is desired.

WHEEL ALIGNMENT

TOE

Wheels pointing in or out at straight ahead position. 'Toe in' of a few millimetres will provide good stability in a straight line and under brakes, but not so great corner turn in. 'Toe out' of a few millimetres will provide good turn in response but ordinary straight line and braking stability. Zero toe in will be somewhere in the middle. Toe will also dynamically change under acceleration (particularly FWD/AWD) and braking if any type of rubber bushing is used in the suspension joints. Finding the ideal setup will require playing to get the desired results, just keep it less than 4mm total each way to begin with. Two flat planks against the wheels and a tape measure is a great place to start for the home D.I.Y.er (ideally its best to measure toe at the hub centerline with lasers or a string line, but toe plates are certainly adequate for club racing).

CAMBER

The amount a wheel angles in at the top. As a car rolls on its suspension and the tyre grips and squirms under itself, the contact face of a tyre can be reduced as its now the outside edge of the tyre doing all the work. Adding some negative camber (wheel angling in at the top) the contact patch face of the tyre can stay more in contact with the ground. The down side to this is that too much camber can reduce braking grip or traction for acceleration. Most cars benefit from at least 1 degree static camber (when wheels are pointing forward), and often more depending on tyres and car. Camber can also be gained dynamically when the steering wheel is turned – caster.

CASTER

Can be seen as the inclination of a strut when looking at the car from the side. Caster adds stability at the straight ahead, the opposite can be experienced with a shopping trolley as the inclination is reverse. Adding additional caster, through items such as adjustable strut tops has the effect of adding more dynamic camber when the steering wheel is turned. On average, most cars benefit from a few more degrees of caster.

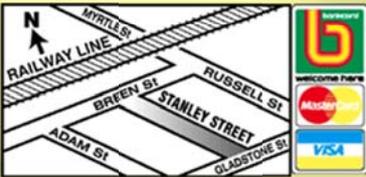
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