CENTRESTAND



CHINESE TO THE ISLAND

TOY RUNS

HELMET STUFF

MISS HEATHER WARD

MRASA AGM 2023

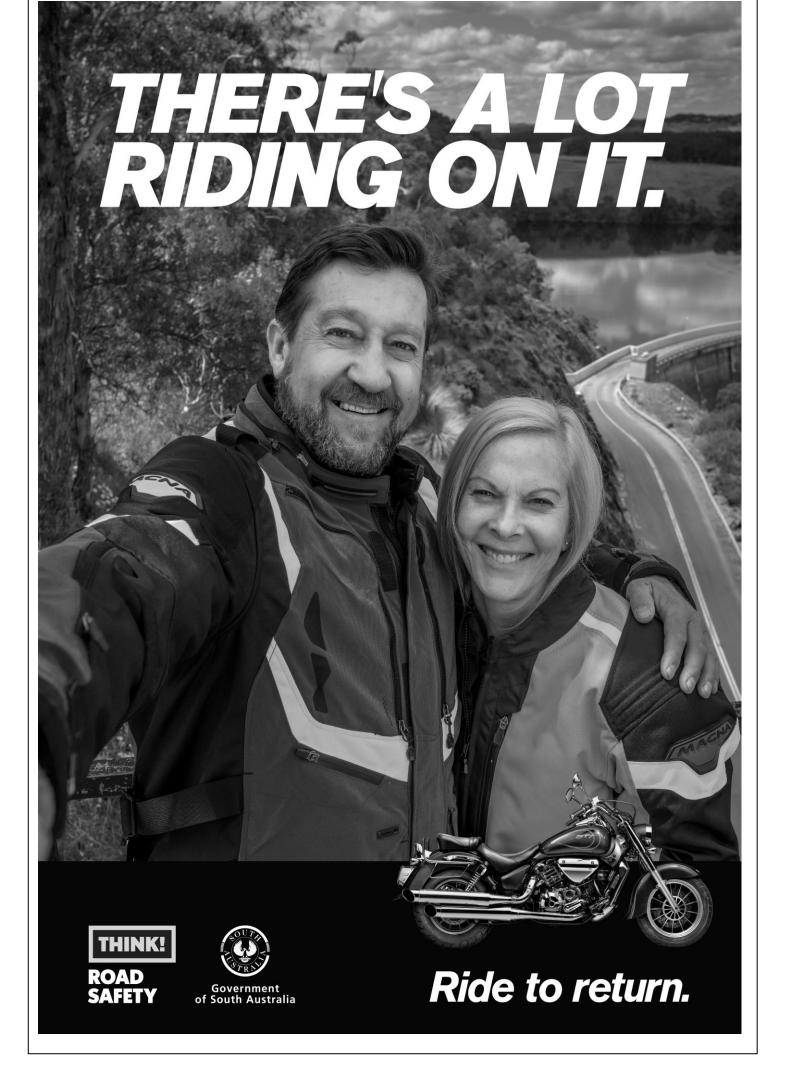
BUNK A BIKER

RIDING PHYSICS

DUST

Let those who ride decide





M.R.A.S.A.

MOTORCYCLE RIDERS' ASSOCIATION OF SA INC.

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Australian Motorcycle Council Inc.

Contributions welcome – preferably in digital form. These may be edited for space and clarity

EDITORIAL

The other day a learner rider rode past me. His safety gear consisted of a t-shirt, sneakers, ordinary jeans, open-face helmet and bare hands. In the event of a crash (even a slow off) the t-shirt was going to last as long as his skin would. One or more of his sneakers could come off leaving the feet vulnerable to the road surface. Similarly, not wearing gloves is an invitation to losing skin and fingers. Think about what you could no longer do if you were without your palm and missing two or three fingers of either hand.

Everyone who knows me knows that I'm not a fan of open-face helmets. I don't advocate compulsory full-face and support the right to choose headgear, but I have spoken to a few people who have been in crashes and will no longer wear the open-face after a significant off while wearing a full-face. Comments like, "If I hadn't been wearing a full-face I would have ended up with half a face" (or no jaw or horrific facial injuries – take your pick). Ask anyone who has spent months in rehab eating through a straw just how much fun it is.

Motorcycle and scooter riding has risks. You can't account for everything ie an errant bird, kangaroo, goat etc, unexpected slippery surface, dumb drivers and all the rest. But you can mitigate any possible injury by wearing suitable gear. Sure, sometimes it may look a bit dorky and your mates may rag you but your family will thank you and say "It could have been worse if you weren't wearing ..."

There are all kinds of good and not so good safety gear around. I would prefer that you wore the good stuff, but anything is better than nothing. Just cover up the vulnerable bits. It won't but take an instant to let you know if it works or not.

So this summer, look after yourself and your mates by being an example of the safe rider and speak up when one of them is careless with their safety.

And remember, 'If It's too hot to wear the gear, then it's too hot to ride.'

Ride safe, Harald

PRESIDENT'S REPORT

Hi Everyone

Once again it's almost that time of year when Santa turns up. Make sure you save the date, Sunday 11 December 2022 for a 'normal', non - Covid Toy Run!!

I have been to a few of the Toy run organising committee meetings and can attest to the hard work, and time which goes on in the background to ensure the success of the event. There are a lot of moving parts and organisations which have to be liaised with and fitted together, marshals trained etc

Speaking of marshals – all the marshals and other folks who make the day happen volunteer their time and some of them don't get to go on the ride or get to enjoy the festivities because they are working to make sure that you all have a great time and a safe experience. This includes the Saturday setup at Callington (about 20 people), the gathering at Victoria Park on Sunday morning (again about 20 people), the fair at Callington (25-30 people) and the bump-out on Sunday afternoon (at least another 15 people). In the past we've had as few as 26 volunteers to share the load for the Sunday alone which made it a very hard weekend for all concerned.

Without sufficient volunteers we can't hold the Toy Run. It's as simple as that — and it's getting harder every year to get enough volunteers. This is your event so if you want it to continue we need you to step up and bring a friend, even for just a few hours. We've got lots of jobs. Ring Cathy on 0408 853 380 or Harald on 0421 289 714, better sooner than later.

Make sure you come out, drop your toy at Victoria Park, or donate online with the Vinnies, enjoy the ride and stay for a while at Callington oval and check out the stalls, bikes etc

Also if you have let your membership lapse or a friend would like to become a member come to the MRA tent and sign up!

John Maidorn, President

MRA NEWS

The MRASA has just agreed with Motorcycling SA to become a sponsor in 2023 for the bLU cRU SA Junior Cup. This series offers a training program for young riders (male and female) who have the skills and ambition to one day become professional racers.

The sponsorship will be done in conjunction with our road safety partner, the **Department of Infrastructure and Transport** (DIT – Government of SA). We will be following the Junior Cup series throughout 2023 here in Centrestand and on MOTOCHAT providing results of the competition and interviews with the competitors and their parents.

This is a great opportunity to get the road safety message across to many riders, especially targeting young riders and novice riders.

MOTOCHAT – Since the last mag we have interviewed Miss Heather Ward of The Blond and Fat Bob (see the article on page 10),



Brian Forth about the Balhannah Swap Meet, Fred Keal about the Lion's Bike Show at Macclesfield (The MRASA was there.

Did you see us?) and Ed Darminin about electric bikes. Ed rode a Harley Davidson Livewire from Perth to Sydney and talked to us about his trip and electric vehicles in general.

Motochat will go into hiatus for the Christmas/New Year season. Out final show for 2022 will be on December 14th and we'll be broadcasting again in 2023 on January 17th. In the interim we'll be playing some great rock'n'roll in the timespot 7-8pm on Wednesday evenings.

will be on again in February. The notice of the meeting is on page 10. Most years it just looks like the changing of the deck chairs on the Titanic. Same faces and sometimes same places. It takes a lot to get the work of the MRA done and in the long term if we don't have the bods then the future of the work and the Association is at risk. So come along and consider joining the Committee. We don't always agree, but that's half the fun.







DIT: MRASA PARTNER 2020-23



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CHINESE TO THE ISLAND

A recent motorbike ride from Adelaide to Phillip Island, accompanied by my son, to watch the MotoGP proved to be an enjoyable and relaxing time. Riding a new 650cc CF Moto (MT), despite mumbling from my young son about 'Chinese boats' was fantastic. The bike sailed beautifully and proved to be a fantastic tourer. Plenty of power, excellent handling, good comfort level and cornering almost like Marquez (when he doesn't fall off!). A small add-on cruise control gadget also turned out to be an excellent addition.

No hurry about this trip, we took a round journey of 8 days to get there and back. Accommodation was Big 4 Holiday Park Cabins, which proved to be very comfortable.

Speaking as a proud Croweater I have always been of the opinion that Victoria should be cut off from the mainland and let float south. Having ventured across the border to race the 'Mexicans' in Superkarts on numerous occasions the raining to dry ratio seems to run at about 50%.

However, maybe old age is softening my opinion. The Great Ocean Road, the forest, the ferry at Sorrento, Apollo Bay, Port Campbell etc., and magnificent green countryside went a long way to putting a hold on the 'floating south' idea.

I suppose the only downside was that we had to ride for almost a day and a half in pouring rain. It sounds bad, but with the correct wet weather attire, it 'ain't so bad'. Tip for beginners-pack your gear in plastic bin liner bags, before loading saddle bags.

All in all, a great ride and with seats atop a windy very Lukey Heights watching the best Moto GP race in recent years at fantastic very picturesque racetrack is the way to go! It doesn't get any better!



Can't wait to switch off and do it all again next year.

Geoff King.

MRASA Toy Run 11th Dec 2022

Cathy Lux on behalf of the Toy Run Committee

It's more than a Ride, It's for the Kids.

Only a few weeks till the MRASA 2022 Toy Run.

It's more than a ride. The ride is important for the motorcycling community, it's our chance to change public perception and awareness of riders.

Decorate your bike and join us at Victoria Park from 8am. Santa leads the ride to Callington at 11am.

At Callington, there will be bike club displays, food vendors, live music and of course, Santa. He's asking you to dig deep and donate a toy or a monetary donation to Vinnies.

St Vincent de Paul (Vinnies) ask you to bring a gift or give a monetary donation, so they will be able to give, on your behalf, to South Australian children in need, this Christmas. **It's for the kids.**

You now have the choice to take your toy up to Callington or to leave it at Victoria Park. If you prefer, Vinnies can purchase a toy on your behalf to cater to the age groups most in need, online donation is now available. See MRASA website.

Enter the Motorcycle Show & Shine at Callington on the day, or ring Frank on 0412 937 606.

Entry Fee is still only \$5

MRASA Toy Run information updates are available on the MRASA web site <u>mrasa.asn.au</u> and Toy Run facebook page. You can ring Cathy on 0408 853 380 or Harald on 0421 289 714

We thank our partner **SA Government - Think Road Safety**, our sponsors and our supporters.

The list of FAQs on the website explains these options in more detail – https://mrasa.asn.au/toyrun_faq.shtml

See you at the

MRASA Toy Run 11th Dec 2022 Victoria Park and Callington.

It's More Than a Ride, It's for the Kids.



NOTE: Regional Toy Runs

On page 8 is a list of Toy Runs held in regional South Australia. Please note these are not MRASA events. They are organised by ride groups who choose their own start, finish and beneficiaries. If you happen to be in the area, join in!



As they say! Apologies for the September issue. Not only was it late, but it was done in a bit of a hurry and we lost some of the formatting during production, which was not discovered until after printing. So we dropped a big one! After this things can only get better. Ed

REGIONAL TOY RUNS SA 2022

Roxby Downs – Saturday 10th December. Assemble at Richardson Place Roxby Downs at 10.30am. Stands up 11.30am. Ride to APOMA Hall at Andamooka. Recipient is the Uniting Church of Port Augusta for distribution in the North of SA. Contact Colleen 0419 830 875 and Richard 0417 7807 257 for more details.

Northern Yorke Peninsula - Sunday 20th November 2022. Meet at V&V MCC of NYP clubrooms, Drain Road Kadina. Ride will depart at 9.30am and return at approx. 12.30pm for a BBQ lunch @ \$10 per person. There will be a long run and a short run, open to any roadworthy and registered motorcycle. All Welcome, phone Kerry 0480 399 368

Port Pirie – Flinders Tourers 2022 36th Annual Paul Gianoni Memorial Toy Run - Sunday 27th November 2019. Meet 9am at Ellen Street Port Pirie. Donations go to Vinnies. Contact Lefty 0412 767 945 or Chesty 0418 845 148.

Whyalla Sat 26th Nov Meet at the Library Car park Ekblom St 4.15pm - leaves at 4.30pm. Ride is about 7 km to the Pageant and rides with the Pageant. Toys to Centacare for distribution to children. Toys for all ages not just plush toys please. Contact Perry 0419 134 511

Port Augusta – Saturday 3rd December 2022. Saltbush Motorcycle Club 2022 39th Toy Run Leaves from Pastoral Lawns, Corner of Carlton Pde and Stirling Drive at 10am. All motorcyclists are welcome. All bike must be roadworthy and registered. Destination Homestead Park at approx. 11.30am with a BBQ for Riders. Toys to Salvos Contact Brenton aka Reg 0427 866 424

Broken Hill – Sat 3/12 2022 Rick 0408 884 588

Riverland - Sunday 4th December 2022.

Ride 1. Renmark Assemble 9.15am Industry Rd / Twenty First St.

Ride 2. Waikerie Assemble outside Waikerie Hotel, departing 8.45am

Combined group then departs Loxton 11.15am to arrive Barmera Markets at around 11.45am

Riverland Run organised by the Ulysses Mallee Branch. Contact Scott 0402 500 037

For a list of Toy Runs around Australia, visit www.toyrun.org.au.

ROAD SAFETY OFFICER'S REPORT

Most motorcycles will slow dramatically once the power is rolled off. Therefore, just by releasing the throttle you will slow as if you had applied soft to medium level brakes. As a rider this is great because you have direct control of your speed with minimal effort. However as only the throttle is rolled off, brake lights are not activated

Now reverse the situation, where you are following another motorcycle either on your own bike or in (forgive me) your car. Suddenly, the leading motorcycle slows and you have to brake quite hard to avoid a possible collision. Most riders will say that they would be reading road conditions and would already be slowing in the same way. That is all well and good for the experienced motorcyclist but the truth is such a person is a very rare breed. In average traffic density conditions, you are far more likely to be followed by someone expecting brake lights to come on when your vehicle is slowing.

So, what are your options to help avoid a nasty bump from behind?

Firstly, when rolling off the power apply a little brake as well so your lights activate warning those around that you are slowing.

Secondly, chat with your motorcycle mechanic or dealer to install a smart brake device which senses when the motorcycle slows and activates your brake lights without the need to touch your brakes. These devices flash your brake light when engine braking and down-shifting to warn drivers behind.

Smart brake devices are readily available from electronics shops on the internet at a very modest price and all come with easy to follow installation instructions. To make things even easier, a multitude of Youtube videos have been posted

Whatever you decide, remember that those around you cannot read your mind. They do not know when you intend to slow nor may they react quickly enough. By using your lights you give yourself a better chance of survival. Above all do not add to the chain of events which will end up with you or your bike being hurt.

See and be seen

Ebi Lux

MOTORCYCLE SAFETY

Motorcyclists have a higher risk of death or serious injury when compared to all other road users. Motorcycles account for four per cent of all registered vehicles yet over the past five years (2017-2021), represented 19 per cent of all lives lost on South Australian roads and 22 per cent of serious injuries involved motorcyclists. Unfortunately, these statistics include not just young people but older and returning riders.

As a motorcyclist, it is important to maintain and further develop your safe riding skills. You also need to wear appropriate protective gear and know your own and your motorcycle's capabilities and limitations.

The most essential item of protection for a motorcyclist is a helmet. The law requires all motorcyclists and their passengers (including sidecar passengers) to wear an approved motorcycle helmet that meets either the Australian or European standard for helmets and is in good repair and proper working order and condition.

Wearing good quality protective clothing that is specifically designed for motorcycle use and made by a reputable manufacturer can significantly reduce injury in a crash, particularly abrasions and lacerations. Motorcycle protective clothing aims to prevent abrasion and provide impact protection to exposed areas such as elbows and knees.

Research also shows that motorcyclists are less likely to be involved in a motorcycle crash when they are wearing high visibility or fluorescent clothing.

Clothes that are purpose made for motorcycle riding not only give you better protection than ordinary clothes in the event of a crash, but they are generally more comfortable to wear while you ride.

The Motorcycle Clothing Assessment Program (MotoCAP) provides ratings for motorcyclists to help choose the right gear with the best protection and breathability for their ride. www.motocap.com.au

Rider Course is a tailored refresher program for

Even experienced riders can benefit from refreshing their skills. The Rider Safe Returning

motorcycle riders, and moped riders who don't have a motorcycle licence. The course teaches defensive riding skills and covers issues such as safe braking and cornering techniques, hazard perception, protective clothing and vehicle technology such as Anti-lock Braking Systems. For more information and bookings contact Rider Safe on 1800 018 300.

This was a message from the SA Department of Infrastructure and Transport (DIT).





HELMET STUFF

EXPANDED POLYSTYRENE FOAM (EPS)

Expanded polystyrene (EPS) is a crushable foam, widely used in helmet liners (and other energy management applications like automobile bumpers). EPS is sometimes called "Styrofoam", though that particular name actually refers to a single trademarked brand of EPS owned by Dow Chemical.

The EPS used in helmet liners is of a higher quality than the EPS used in disposable cups, coolers and packing popcorn. But the process of creating it is fairly similar. EPS is created by placing small (.5 to 1.5-millimeter) polystyrene beads into a mold and applying steam and a blowing agent called pentane. The polystyrene beads then expand up to 40 times their original size, fusing together into a solid mass that assumes the shape of the mold.

EPS is lightweight, effective across a wide range of temperatures and conditions and highly effective at reducing the amount of energy transferred to your head during an impact. EPS accomplishes that energy reduction by collapsing during the impact, converting some of the energy into heat and slowing the transmission of energy. A key advantage of EPS is the reliability of the molded part to deal with impact energy over a wide range of conditions. Another advantage is that EPS is not damaged by some of the common chemicals that can affect other materials (although can be damaged by some chemicals). Additionally, **EPS** maintains its protective characteristics over time, (within limits, of course.)

Once those expanded polystyrene beads collapse, however, they do not regain their shape (or ability to absorb energy); for that reason, EPS is strictly suited to single impacts. This is why helmets with EPS liners should be replaced after a crash. Similarly, helmet owners should be vigilant about not dropping or knocking their helmet during daily use. You'll find EPS foam liners employed in the vast majority of cycling, snow sports and motorcycle helmets. Athletes who frequently fall down experience multiple impacts or (snowboarders, football players, etc.) may prefer helmets equipped with more resilient liner materials. (=> p.11)

Manufacturers can precisely "tune" their EPS foams by adjusting foam density to provide just the right amount of impact attenuation needed for a given application. Harder EPS foams work well to reduce energy transfer during high-speed impacts. Softer EPS foams are better suited to slower-speed, lower-energy impacts. Several helmet brands have created dual-density EPS foam liners that combine hard and soft EPS foams, which may help protect riders in some accidents.

(Take care of your helmet liner. Don't hang it on your mirror or sissy bar and don't carry heavy objects in it when you are off your bike (like a camera). Don't leave it on your bike seat where it can fall off and bounce on the concrete or tarmac. The EPS liner can be damaged and you can't see it. That makes it unsafe for you if you are in a crash and hit your head.

Hang it by the strap from the handlebar or other protuberance or place it on the ground next to your bike.

Riding safe not only means riding safely, defensively, but wearing and taking care of your safety gear.

Ed.)



MRASA INC. ANNUAL GENERAL MEETING 2022 NOTICE

The Annual General Meeting of the MRASA Inc. will be held at 7.00 pm Monday 20/2/2023 at the MSA Clubrooms at 251 Norwood Parade. This will be in place of the regular Committee meeting scheduled to be held on that date.

All the positions of the Association listed below will be declared vacant and will be voted on for election to the 2023 - 2024 Committee.

President (Executive Committee member) **Vice President(Executive Committee member) Secretary** (Executive Committee member) **Treasurer** (Executive Committee member) **Membership Secretary Magazine Editor Register Liaison Officer Minutes Secretary Stock Control Officer** Webmaster **Road Safety Officer** General Committee Representatives (number unspecified until the AGM)

At this meeting the auditor for the 2022-2023 year will be nominated. All current financial members of the MRASA Inc. are eligible to stand for election to one or more of the positions. Nominations and meeting proxies (forms are available from the MRASA website www.mrasa.asn.au or contact the Association should with the Secretary secretary@mrasa.asn.au prior to the beginning of the AGM and evidence of current membership must be provided. All members and are invited to attend the meeting. The Auditor's report and the financial records for the 2021 year will be available for inspection.

Sub-Committee reps to the MRASA Committee: Toy Run Committee - Scooter Club - 4Bs - SAMRATS. These positions will be elected by the sub-committees at meetings to be held within 4 weeks of the AGM.

Are you interested in Road Safety? Do you want to know how we get things done? Come along and meet your Committee.

FAT BOB AND THE BLONDE HQ. WEETHALLE NSW

Purely by chance, we stopped at Weethalle for a break after a longish drive from Hay.

Across the road was a funny looking cafe called Fat Bob and The Blonde HQ. Because of the intriguing name and art work on the building, we checked it out and were greeted by a bubbly blonde lady, who introduced herself as Miss Heather, just opening the doors.

Inside the cafe was an Aladdin cave of collectibles. Metalwork sculptures in one corner, state map tablecloths on the wall, motorcycle books everywhere and the most incredible collections of Miss Heather's jugs. The centrepiece of the whole collection was an elderly Fat Bob Harley Davidson, lovingly pushed onto the footpath as the cafe's main display

Anyway, it was time for a coffee and snack so we ordered what we wanted, chatting to Miss Heather all the time. In the course of the conversation we learned that she had travelled round Australia on Fat Bob towing Mr T (trailer) BY HERSELF. To top it off, once the trip was finished the whole story was written up and published as "Fat Bob and The Blonder Girl Torque".

This incredible person had done more in her life by herself than most people do even when surrounded by a massive support group.

This was a story for **MOTOCHAT** and so in due course Miss Heather was our guest and that's where we learned what talking really was. We and our audience were entertained for more than the hour (thanks to the following presenter encouraging us to go over time). Miss Heather's life has been interesting following her one maxim. Live your life and do not be a pillion on someone else's life.

I could go on for a long time. If you want to know more, read the book or better still visit Miss Heather in Weethalle. There is no way on God's earth you will regret making the stop. While you're there ask for a chocolate milkshake and some home baked biscuits. The conversation and snack will be a highlight of your trip.

Ebi Lux



Purpose Statement

Bunk-a-Biker is a worldwide community of motorcycle riders who voluntarily provide accommodations to travelling bikers. It's a self-moderated network to be utilized along the road for meeting new friends, and getting support for maintenance needs. While it is a privilege to use, it's not rightfully designed to be used purely for the sake of saving money but instead to promote the togetherness and support of the motorcycle-enthusiast community.

Bunk-a-Biker was started on Facebook but has branched onto Instagram, the general web, MeWe, and has its own social media site, the *MotoMultiverse.com*. You can follow the Facebook page or Instagram or join one of the Facebook groups listed.

While you do not need social media to use the network, there are many benefits to joining the Facebook groups. You can find posts about guests/hosts, check out someone's profile before socialising with them, and connect with other members of the network easier.

There are links to each Facebook group on the BaB website for: Africa, Australia, Austria, BeNeLux (Belgium, Netherlands, Luxembourg), Canada, Canada-Quebec, Central America, Denmark, Finland, Germany, Great Britain, Iceland, Italy, Mexico, New Zealand, Norway, Poland, Portugal, South America, Spain, Sweden, Turkey, United States, World Wide.

Bunk-a-Biker; A Brief History

Bunk-a-Biker was thought up in 2014 by Kjetil (Che-tyl) Lystad of Oslo, Norway. Kjetil would offer his place to friends that were riding through and before long, his name started to get passed around to other riders. So began the idea to start a motorcycle-specific group similar to Couch Surfing, which has become popular worldwide.

"Let's make this group be for all bikers to unite under the idea of offering their place to their fellow riders who travel through," he said.

The name "Bunk-a-Biker" quickly popped into his head, catchy and simple, and he began promoting it locally and to his friends. On February 2nd, 2015 he started the first Facebook group, 'Bunk-a-Biker Norway'. It was followed by the Facebook page of the same name on October 15, 2016. The ball was rolling and members were offering to start and run branched-off local groups for Denmark, Sweden, Australia, the US, and so on. Unfortunately not long after, Kjetil began having health issues so the momentum for BaB slowed down and eventually came to a halt by mid-2017.

In June 2019, Zee Traveler approached Kjetil with an offer to re-kindle Bunk-a-Biker into an active, healthy, and well-maintained resource. To this day, Zee still spends much of her time helping members learn to use the map (see on the website), making sure the map data stays organised, running the infrastructure on multiple social media platforms, marketing, giving interviews, and explaining what Bunk-a-Biker is to anyone who will give her a minute of time. It's a ton of work to keep BaB running smoothly but Zee is fortunate to have many amazing people who volunteer time to help manage the Facebook activity and assist with other projects. It's a community effort to keep this community going.

You can participate in BaB as a Host or a guest – or both. There are rules to attend to which are outlined in detail on the website. These are designed to make the service convenient and safe for both hosts and guests. Hosts for example, can outline the services available ie bedroom for two, backyard camping, secure bike parking, use of tools, dates available, house rules etc. Guests on the other hand need to upfront about their needs ie allergies, and be respectful to the hosts rules.

Bunk-a-Biker is a FREE service for the members to use and hosts are not paid for their friendliness. The idea is to create a community of bikers who provide support for each other. If you enjoy the service, consider supporting BaB monetarily (through the Website) to ensure BaB can continue growing and thriving. Or if you own a business, become a paid advertiser.

bunkabiker.org

RIDING PHYSICS

The Physics of Motorcycling - Exploring the Hidden Forces that Keep you Safe



The picture above is an interesting one. It's an image from the "MotoGP Lean Angle Experience." It allows regular punters like you and I to experience what it's like to lean at a purported 64°, just like our racing heroes. And while it may just seem like a pleasant way to waste 15 minutes at your local MotoGP event in between the races, it's actually a genius idea that does something very important in terms of rider training.

See, as we all know far too well, the real challenge with learning about motorcycle physics is that if you get it wrong, you can end up seriously hurting yourself in a motorcycle crash.

Make a proper mistake in the world of motorcycle racing and the consequences can be hospital, permanent disability, or even a one-way trip to the big MotoGP racetrack in the sky. They make it look so east and the result is that many regular riders treat the art of riding a bike kind of like a game of Russian roulette.

But what this big "bike on a hinge" attraction at the Moto GP does is allow people to push the limits of motorcycle physics safely; it shows them what happens when a bike leans and provides a greater level of understanding regarding the forces at play. It also breaks down the process into something easy and memorable — and most importantly, it lets participants understand what happens when a bike leans without them actually having to attempt a similar move at high speed.

In essence, they are learning the theory of movement and physical interactions before putting it into practice. That, is what they call physics.

So let's look at what actually is happening when you ride your beloved motorbike down the road and through a set of corners. I'm going to break this whole she-bang down into three main parts: acceleration, braking, and cornering.

1. Acceleration Physics

What we are doing here is bringing a common, garden-variety motorcycle from a standstill up to a comfortable cruising speed. Needless to say, at a standstill and with the engine turned off, a motorcycle only has one main force acting on it, and that's gravity.

Gravity & Torque

Turn the engine on and it now has two forces acting on it: gravity and a large rotating mass spinning inside of it. Put simply the pistons, crankshaft and other assorted gubbins that form the rotating mass inside an engine create "torque" (a force that can cause an object to rotate about an axis). Rev the engine and Sir Issac Newton's third law kicks in here—and it states that "For every action (or force) in nature there is an equal and opposite reaction."



In this case, as the engine spins up, it also exerts equal and opposite force on the bike itself. In the case of my **BMW** and its boxer engine, when I rev the engine standstill, the

entire bike rocks to the right. This is, in fact, the counter-clockwise rotation of the engine's crankshaft pushing against the rest of the bike and trying to spin the entire bike in a clockwise direction.

Thanks to gravity, the crank's rotational axis, and the fact that the bike is resting on the ground, this

force translates to the top of the bike moving to the right.

But the best "opposite forces" here are the ones that propel you and your bike forward, namely the ones that this very same spinning engine is imparting on the rear wheel. It does this by pushing the bike forward and in another example of Newton's third law, it also sees the bike itself push against the road, or if you want to be really dramatic about it, it's actually the bike trying to spin the entire planet in the equal and opposite direction to the bike's direction of forward travel.

Take this idea to its logical conclusion, and a bike that had enough mass and torque could stop and/or change the planet's spin—but that's a Friday beers conversation we're not going to have here.

A drag bike's wheelbase is long, with the rider and engine as far away from the rear wheel as possible to make it harder for the bike's torque to induce a wheelie.

So basically, the force of the engine turning is transmitted to the rear wheel, which pushes against the road and moves the bike forward. And as most motorcycles have a fairly short wheelbase as compared to their centre of gravity and its distance above the road's surface, a motorcycle that has enough torque applied to its rear wheel will eventually raise its front wheel off the ground.

This is why drag bikes tend to sit low and have very long rear swingarms: the longer the wheelbase of the bike, the harder it is for the torque pumping out of the rear wheel to lift the bike's front off the ground. And in drag bikes, it's all about how much force you can impart to the ground without looping the bike and having the thing land on top of you; hence their epic length. Why Motorcycles Stabilize As You Ride

The other force that comes into play at this point is the force of the bike's two wheels spinning. Now, unlike the turning force of the engine, this force isn't just present under acceleration. Instead, it is present at all times and is entirely reliant on the speed that both the wheels are spinning at. A motorcycle won't want to wheelie if you are cruising at a constant speed, but the angular momentum generated by the mass of the spinning wheels and tyres is constant. And thanks to the

rules of conservation of angular momentum, the bike's spinning wheels will tend to keep the motorcycle upright, travelling in a straight line.

Don't believe me? Then think about how many times you have seen a MotoGP rider have an off only to see their bike right itself and continue on in a straight line until it hits a barrier. That is the wheels conserving angular momentum. And how many of you have seen a stationary bike stand up by itself without a stand? Exactly none, right? Again, that's because the bike's wheels are not spinning—and therefore there are exactly no forces at work apart from gravity.

The final main force here is also regarding good ol' Newton. He also stated that objects at rest will remain at rest. So when you apply the throttle and the bike moves off, your body will want to stay stationary. At gentle accelerations this is barely perceptible, but if you really give it some beans, the bike will launch forward and you will get the feeling of your body wanting to slide backward off the bike.

The most natural reaction here is to tighten your grip on the bars, but guess what? That's right, your primary handhold on the bike is also the throttle; and that's that part that makes the bike go faster. Ever heard of whiskey throttle? Boom.

The other (albeit more minor) force at play here is wind resistance, which also pushes against you and the bike. But we won't go into that here because unless you plan on a session at the local race track, the forces aren't enough to have any meaningful effect at regular speeds. Certainly not one that'll endanger you.

ACCELERATION SAFETY LESSON: During acceleration, torque forces will counteract the force of gravity keeping your bike's front wheel on the road, reducing the effectiveness of the steering and possibly raising the front wheel off the ground. The force of a motorcycle's spinning wheels keeps the bike upright and wanting to head straight. Your body will want to "stay behind" when your motorcycle accelerates, affecting your posture, grip on the bars and how much throttle you are applying.

Andrew Jones www.webbikeworld.com images Via Mootogp

(next issue: Braking and Cornering Physics)

THE DEVIL IN THE DUST

Dust is a part and parcel of riding, but how do you deal with it?

You can't avoid being exposed to the elements when you're on a motorcycle and the only thing you can do is try and reduce the effect it has on you. You don't have to be an MX rider or off-road junkie to come in contact with dust on a motorcycle. It could be from a construction site you pass by, or a dust cloud caused by a vehicle in front of you — your everyday commute on city streets has enough for you to worry about.

Besides affecting how comfortable you feel, excess dust can also have detrimental effects on your health. Road dust contains lead, platinum, rhodium, bohrium, aluminum, and polycyclic aromatic hydrocarbons, all of which can cause issues with the respiratory system. The long-term consequences of road dust exposure can be as severe as respiratory cancer.

There are steps you can take to significantly reduce how much you inhale while riding. Unless you have a pre-existing respiratory condition, breathing in road dust may not bring about immediate signs of discomfort. Still, the research shows that there are long-term effects you should take seriously.

Wear a Full Face Helmet - If you ride primarily in the dirt or off-road, we hope you wear a full-face helmet anyway for the added safety they provide. However, if you ride mainly on tarmac or commute on your motorcycle with a half-face helmet, you should consider switching to a full-face unit. A full-face helmet with the visor down does an excellent job as a physical barrier against dust and other pollutants thrown up by vehicles in front of you. (50% lower)

It's worth noting that a full-face helmet is a significant first step to counteracting dust exposure, but it isn't a comprehensive solution by any means. If your full-face helmet doesn't have a chin guard, it allows the formation of a channel of air that flows into the helmet. Plus, you will crack your visor open at some point, exposing your face. That's where a dust-filtering mask or balaclava comes in. These masks have been specifically designed to filter out microscopic dust particles so the air you breathe is as clean as possible. There

are several dust masks out there, so you must get one that's been designed and manufactured well.

Reducing your exposure to dust will help. This doesn't mean you stop riding off-road or on gravel. However, if you find yourself on one, try and create distance between the rider or vehicle in front of you so you aren't riding through a cloud of dust they've just thrown up. Similarly, if you plan to head out and explore some trails, it helps if you do this early in the morning. The morning dew and moisture in the air hold dust particles to the ground, and the amount of dust you'll have to deal with will be much less.

Motorbike Writer Oct 2022



For those who aren't keen on crowds

LET THOSE WHO RIDE DECIDE.

MRA DISCOUNTS These businesses support the MRASA by providing discounts to MRA members.						
Bridgeland Motorcycles	Discount on request	8532 5722	145 Adelaide Rd Murray Bridge			
Coast Yamaha	Discount on request	8382 5581	212 Main South Rd Morphett Vale			
DA Motorcycles	Discount on request	8281 8933	1758 Main North Rd Salis Plains			
Gawler Motorcycle Centre	10% discount on accessories	8522 7700	Lot 1 Main North Rd Evanston			
GC Motorcycles Prospect	\$5 on tyres, 10% accessories	8344 7888	122 Main North Rd Prospect			
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Gilbert & Mattner Lawyers	10% discount	8233 3661	32 St Helena Place Adelaide			
Honda World / BMW Adelaide	10% parts & accessories	8374 2299	1075 South Rd Melrose Park			
K & M Motorcycles	10% parts, accessories & ws.	8234 1090	10 Deacon Ave Richmond			
T 0 1 T 1 G 1	10% new products, 20%	0.417.710.500				
Ken Oath Leather Goods	repairs, all Aussie leather	0417 713 523	3 Cranbourne St Elizabeth Park			
Kessner Suzuki	10% parts and accessories	8261 9955	320 North East Rd Klemzig			
Motorcycle Parts & Gear	Discount on request	8562 4725	33 Railway Tce Nuriootpa			
Motorcycle Revolutions	Discount on request	8371 4448	855 South Rd Clarence Gdns			
Pro Street Cycles	Discount on request	8359 4449	494 Main North Rd Blair Athol			
QBE Insurance	Ring for a quote	0392 462 761				
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Yamaha Retro Spares	tyres, 10% services	8340 1970	115 Regency Rd Croydon Pk			
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ROAD HAZARDS FREECALL NUMBER: 1800 018 313

Useful Links

Metro and Country Roadworks from Transport SA. http://www.transport.sa.gov.au/quicklinks/metro_country_roadworks.asp Outback Roads Temporary Closures, Restrictions and Warnings Report from Transport SA website.

http://www.dpti.sa.gov.au/OutbackRoads

Road Safety http://www.dpti.sa.gov.au/roadsafety/home home page from Department of Planning, Transport and Infrastructure. (DPTI) Road Crash Reports by vehicle type from DPTI.

Road Crash Reports by month in SA from DPTI http://www.dpti.sa.gov.au/roadsafety/road crash facts/sa crashes

Road Statistics from SAPOL. http://www.sapolice.sa.gov.au/sapol/road_safety/road_statistics.jsp

Road Crash Statistics from Australian Transport Safety Bureau.

For information about motorcycle safety gear testing and rating. www.motocap.com.au

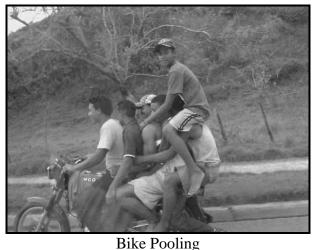
For information about helmet testing and rating. httpps//:crash.org.au

For regular updates register at Austroads Road Watch austroads.roadwatch@infoservices.com.au

MOTORCYCLING AROUND THE WORLD



On Ya Bike!



MRASA CENTRESTAND DECEMBER 2022

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Janzow		Treasurer - Barry Stoneman	0407 187 634
Note: 8 General Member positions for the Committee		MRA Mid-North PO Bo	ox 37 Snowtown SA 5520
remain unfilled and will be appointed by t	the Committee. If		
interested contact Ebi or Cathy.			

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I agree to abide by the Articles, Rules and the Constitution of the MRASA Inc. (Copy of the constitution available from the website or the Secretary)
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