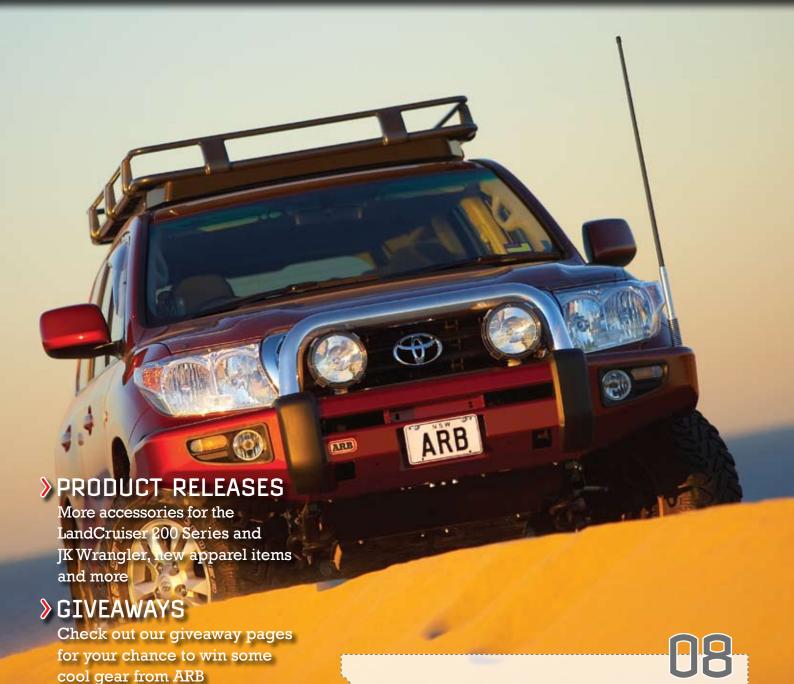


4x4action>



> LATEST NEWS

ARB launches its fully updated website

> FEATURES

Chris Collard reports on the Outback Challenge Morocco and Neil Cocks continues his trip through Africa

LandCruiser 200 Series Sahara Bumper

Following the release of a range of accessories including deluxe bull bars for the 200 Series LandCruiser, ARB now offers a Sahara bumper, providing vehicle owners another frontal protection option. Turn to page 10 for more information on this product.

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4EXABaction

ARB Snapshot

mentioned in a previous edition of ARB 4x4 Action that we were working on a number of major new projects that would give our customers even better access to information on ARB products. We are delighted to announce in this issue, that some of these have now come to fruition.

We're very proud to launch our completely new website. We totally threw the book away and started from scratch with this one, with the aim being to provide our customers with as much information as possible on the products and services we offer. One of the main characteristics of the new site is the ability to completely customise it to suit your own vehicle. This will allow you to get information specific to your model, along with the generic product information we have always provided. The new site also includes an events calendar and a tips and techniques section. We strongly recommend you get on the new site www.arb.com.au and start to explore all of the products on offer for your vehicle.

Whilst planning the new website, we travelled to some fabulous locations to capture our products in action, and we really hope the photography will inspire our customers to get out and explore some of these regions for themselves. And if you're curious to know how we got the vehicles looking so immaculate 500km from the nearest sealed road, spare a thought for the guys who had to wash each vehicle by hand dozens of times over the course of each photoshoot.

In terms of new products, this issue's newsletter contains releases for the LandCruiser 200, Ford Ranger and Y61/GU Patrol/Safari. And our younger readers will love the addition to our Fourby apparel range.

Happy 4wheeling!

- Matt Frost, Marketing Manager, ARB 4x4 Accessories



Expanding ARB's range of products for late model vehicles, Sahara bumpers are now available for the Ford Ranger, Mazda BT50 and Mitsubishi Triton/L200.

An ARB Sahara bumper is an alternative protection option for vehicle owners that affords a similar level of protection to our deluxe bars, but incorporates a unique, modern style. Each of the new bumpers has been specifically designed for its respective vehicle to provide optimum protection and appearance, while maintaining compliance with air bag compatibility.

A feature being introduced into ARB's recent Sahara bumpers is their ability to be configured with or without the 76mm polished centre frame, giving owners of these vehicles additional versatility. Incorporating the renowned five fold, upswept and tapered ARB wing design, these new bumpers also incorporate internal braces for added strength and durability against vibration. And a tough, 2mm steel centre stone guard/

air pan helps protect the underneath of the vehicle from stone chips and road debris while also maximising engine cooling.

An electric winch is a formidable off road recovery tool, and all ARB Sahara bumpers are designed to withstand the strain that this puts on the bar and the vehicle. These new Sahara models are suitable for Warn low mount winches up to 9500lb, but should you not wish to fit one, a neat cover panel is supplied.

Featuring quality urethane buffers and provision for aerial brackets and IPF driving lights, these bumpers are not suitable for the factory fog lights, but the optional new ARB fog lights offer exceptional performance at a reasonable price. The fog light/turn signal surrounds are injection moulded for a quality, long-lasting appearance, and the bars are finished in a millennium grey powder coat.



New ARB Website

ARB is extremely excited to announce the launch of our all new, fully updated website. Incorporating everything the preceding site did, plus even more information and features, it is now an even better resource on all the latest from ARB.



Opening up to an eye-catching introductory page that contains stunning flash animation elements, the new website utilises a modern design that is incredibly user friendly.

The website provides the option of being fully customised to individual preferences, and once done, will display the complete range listing for a specific user's vehicle. It is then possible to navigate around the site, gathering information about the products available, complete with images showing them fitted to that vehicle.

The 'Store Locator' is another great feature, which allows customers to search for their nearest ARB store by either postcode or state. And there is a 'Calendar of Events' so consumers can get information on upcoming 4WD shows and events. Along with signing up to the newsletter, ordering a catalogue and contacting us, the new site also means that users can go in and update their details quickly and easily.

An all new 'Getting Started' section has been developed, designed specifically for novice 4WDers, that contains information on the basics of four wheeling. Topics such as 'Vehicle Selection', 'Travellers' Checklist' and 'General Driving Techniques' are included here, aimed at providing advice to those that are just getting into 4WDing.

Along with the great new features, the website includes our full range of products in an easy to navigate layout. All the latest information and images have been employed, and it will be regularly maintained to ensure that it is always up to date. ARB has big plans for the future, and there are numerous additional elements in the pipeline that will be implemented over the coming months. The continual expansion and introduction of new features to the website will make it even more informative and appealing to all types of 4WDers. If you haven't already come across the new site, make sure you check it out as soon as possible at the same address as previously: www.arb.com.au.







4x4 Adventure Light LED

When developing the all new 4x4 Adventure Light LED, ARB's aim was to release a premium all-purpose light that would provide a broader spread than others on the market. ARB incorporated new technology into their proven Adventure Light design to produce a robust work lamp that offers bright, broad lighting without the glare associated with traditional fluorescent work lamps.

The compact and lightweight Adventure Light LED has a light expectancy of 50,000 hours, and is shock resistant, making it a reliable product that is ideal for use in a variety of outdoor activities. It can be operated via a 12 volt socket in your vehicle or direct to the battery with the supplied alligator clips, and has a very low current draw of less than $\frac{1}{2}$ an amp. Supplied with a high visibility canvas storage bag and two year warranty, the 4x4 Adventure Light LED is a handy accessory, whether you're camping, performing roadside repairs, or just need a reliable outdoor light.



> Part no: 10500010

New ARB Air Locker for Nissan Y61/ GU Patrol/Safari Cab Chassis Models



To complete the range of Air Locker locking differentials available for Nissan Y61/GU Patrols, ARB has just released an exceptionally strong rear Air Locker for cab chassis leaf sprung models that use a H260 with 34 spline full floating axles. Built to suit the vehicle's formidable size and power, this new Air Locker application (RD144) gives GU Patrol owners the opportunity to experience the ultimate in traction on demand. Providing outright improvements to a vehicle's off road capabilities, an Air Locker also allows a 4WD to be driven in a more controlled manner, thus reducing the likelihood of vehicle damage and environmental impact.

The attraction of an ARB Air Locker lies in the fact that it is a replacement differential that gives the best of both worlds – a normal open differential for on road use, and a positively locked differential for challenging off road situations. ARB Air Lockers utilise a 12 volt compressor that delivers high pressure air to the differential centre, thereby engaging the locking mechanism. With both wheels tied directly to the rotation of the crown wheel, the vehicle maintains maximum traction when the Air Locker is activated.

Incorporating structural components manufactured from aerospace grades of high alloy steels, this new locker, like our other models, retains the advantage of being activated by a dash mounted switch. ARB's patented Air Locker design has proven ultra reliable even under the most arduous conditions. A massive range of vehicle applications, coupled with an impressive track record for durability and performance, has significantly contributed to the Air Locker's worldwide popularity, with the product used in over 100 countries by a very diverse customer base.

Along with Air Lockers, ARB also stocks a range of vehicle mounted air compressors to assist with activation. With each model designed for long-lasting performance, head into your local ARB stockist to find the best option for your requirements.

> Part no: RD144

OLD MAN EMU NEVS



Toyota LandCruiser 200 Series

by ARB's specialised OME engineering team, integrated suspension systems are now available for the Toyota LandCruiser 200 Series.

Upon testing the original suspension, engineers discovered that an improvement of the vehicle's load carrying abilities should be their top priority. Along with this, the system needed to encompass all the benefits that OME is renowned for, including an increase in ride height.

In order to achieve this, an extensive range of front and rear coils was developed, with the varying ride heights and coil rate options allowing owners to receive the best suspension set up for their needs. Obviously, improved shock absorber valving to control these higher OME spring rates was an essential part of the package.

Hundreds of hours of road testing were carried out to ensure that the specific valving in the struts and shocks would provide significantly better ride and handling, together with the springs.

This investment in months of field development work carried out by our OME team, combined with the wide spring selection, has ensured the Old Man Emu 200 Series suspension range will provide customers with vastly improved load carrying ability, as well as optimum ride and control performance both on and off the road.

Land Rover Discovery 3

In the past, Land Rover Discovery 3 owners have not had the option of upgrading their suspension to the renowned Old Man Emu brand. Recently however, OME engineers have been working on developing a selection of coil springs which are now available. Designed to be used with the original struts, owners of coil sprung vehicles can now enjoy the benefits of improved ride, load carrying ability and control characteristics (excludes electric air suspension models).

Formed on precision mandrels from high quality steel, our springs, like all our OME components, are designed and built by a team of experts that specialise only in 4WD suspension. A range of coil springs are available for the Discovery 3 to ensure that installers can match the most appropriate parts to the different requirements of vehicle owners, forming a suspension package that will provide vast performance improvements on any road surface.



AWD & SUV Updates



Towing ability, ride height and vehicle handling can all be adversely affected when a vehicle is under load. The addition of an Old Man Emu suspension system provides immediate improvements in all of these circumstances.

ARB has always offered a range of suspension packages for owners of AWDs and SUVs. However, with the influx of recently released popular update models, Old Man Emu engineers have been busy developing a much larger selection of suspension components to meet the growing demands of these users.

This has resulted in the production of a range of new coil springs, catering for AWD and SUV models that previously did not have OME options available. From the Ford Escape and Hyundai Santa Fe, to the Subaru

Forester and Toyota Highlander/Kluger, OME now offers these vehicles additional ride, handling and control characteristics over all road surfaces. Complete suspension kits incorporating Nitrocharger shocks and springs are available for some vehicles, while others combine the benefits of Old Man Emu with the dependable original equipment components.

Along with suspension, ARB also offers an extensive range of products for these vehicles including nudge bars, driving lights, roof bars and tow bars, to ensure that owners can get the most out of them.







Congratulations to Manuel Pace, who is our portable compressor kit winner for this issue. Everyone else who appears on these pages will receive an ARB Speedy Seal puncture repair kit to reward their efforts.

Win an ARB Portable Compressor

his issue, we're giving away another portable air compressor one! Simply write to us and ask us anything you'd like to know about ARB and our products. The letter of the month will be published in the next edition of ARB 4x4 Action, along with our reply. The winner will need to pick up the compressor from their nearest ARB store.

Send your letters (250 words or less) including your address and daytime phone number to:

Post: ARB 4x4 Accessories **Marketing Department** PO Box 105 Kilsyth VIC 3137

Email: marketing@arb.com.au

due to the volume received, it may not always be possible. Please note that all entries for this section are only reviewed on a quarterly basis. Should you have a question that requires a more immediate response, please direct it to



ASK ARB

WINNER! I have recently taken my family Toyota LandCruiser 80 Series on a 4WD track with my wife and children. I wanted to test the capabilities before I take them Outback onto more demanding terrain. The vehicle responded really well on the steep, uneven, broken stone terrain; however I have a query about the different types of diff lock. In my vehicle, the diff lock automatically comes in when in low ratio, and a push button for high ratio. I don't believe that this gives me individual traction on the four wheels. Could you please explain the difference between diff locks (as above) and the ARB Air Lockers? Kind regards,

Manuel Pace and family

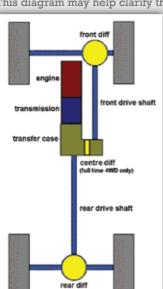
Dear Manuel and family,

The 'diff lock' you are referring to is not an axle differential lock like an ARB Air Locker, but rather what is correctly referred to as a 'centre diff lock'. It is a very common misconception that they are the same thing, when in fact they are quite different in function and benefit.

The centre diff lock you have serves a similar purpose to ARB's Air Locker except that a centre diff is there to ensure equal traction between your front and rear axles only. All traction losses from side to side (from left to right wheel across the same axle) are not accounted for at all by a centre diff lock until you add an Air Locker to one (or

Note: A centre diff is not even included on most part-time 4WD vehicles (i.e. vehicles with manual front hubs) and therefore their centre is always locked.

This diagram may help clarify this:



Here are a few examples:

- 1. Have you ever noticed that if you turn off your centre diff lock your vehicle will spin its front axle as you climb up a steep hill? This happens because most of your vehicle's weight is bearing on the rear axle while climbing uphill. A locked centre diff will save you from losing this traction from the front axle.
- 2. Have you ever noticed how 2WD vehicles pulling a boat out of the water on a slippery ramp will usually spin the right hand tyre? This is from torque bias caused by the torque from the vehicle's drive shaft, and is remedied when you turn an Air Locker on as both wheels are forced to spin at the same speed.
- 3. Have you ever brought the whole vehicle to a halt just because one side of the track is slippery (e.g. from mud)? Without an Air Locker, a traction loss on one side of the vehicle equals a traction loss on both sides. Locking an ARB Air Locker will save you from losing traction on the side of the track that still has a good surface, and most of the time this is enough to keep you going.
- 4. Have you ever brought the whole vehicle to a halt as you attempt to climb over a bump on only one side of the car? You will find that this occurs when the tyre that is NOT elevated on the bump loses traction and spins. This happens because the other elevated wheel is lifting the vehicle upward and reducing the down force on the opposite wheel. A locked Air Locker will never allow one wheel to spin freely - even if it is hanging in mid-air.
- 5. Have you ever found it difficult to steer when driving up or down steep hills? This happens because of varying traction conditions on different tyres which allows one side of the car to slip while the other side holds firm. The spontaneous steering effect that results can dangerously get you sideways at the worst possible time. An Air Locker will assist you with steep ascents and descents as it will maintain an equal rotation on all locked wheels, which has a natural tendency to track the vehicle straight, thus preventing your vehicle from yawing from side to side as the road surface conditions change. Hopefully my reply has clarified the difference between centre diff locks and axle diff

locks like ARB's Air Locker. You should also be aware that because the locations of the centre diff lock and Air Locker axle diff locks are totally different, you are always able to add an axle diff lock (or two) onto your axles to work together with your centre diff lock, to get the maximum grip available to your vehicle.

Daniel Bongard (Engineering Supervisor)



My question relates to air compressors. I am in the market for a compressor as I do quite a bit of sand driving. I would also like to one day get some ARB Air Lockers, but can only afford to do a bit at a time. Do you recommend getting an ARB compressor installed to pump up my tyres and at a later date add the Air Lockers when I have the funds? Or get a portable compressor for now? And if so, can the portable compressor be removed from the carry box and installed to use with diff locks?

Appreciate any help,

Matt Sheppard

The majority of the compressor assembly used in both our CKMA12 on-board air compressor kit and our CKMP12 portable compressor kits is identical, and for this reason you will find that both units share equivalent performance and durability. As this suggests, it is certainly possible to use either kits to function as the other. However, they were tailored to slightly different directions, and for this reason, there may be more involved with adapting a portable compressor to an on-board installation than you think.

Beside the obvious advantages that each compressor type would have over the other, please consider the following lesser known points:

- 1. The on-board kit contains the complete wiring loom necessary to properly connect your compressor to your battery and operate not only it, but also one or two Air Lockers from inside the cockpit. The portable does not.
- 2. The on-board kit is assembled with a longer manifold tube to accept one or two Air Locker control solenoids. The portable comes with a lighter weight manifold with only a single larger port for the hose junction.

I just wanted to let you know how rapt I am in the gear I have added to my 3L Patrol for the recent 5000km simpson Desert trip we did. From Geelong to Broken Hill, Cameron Corner, Innamincka, Birdsville, Mt Dare, Oodnadatta, then home - the only thing that happened was a cracked spotty cover.

The ARB gear did a great job over some pretty horrendous gibbers and really rough tracks - my accessory listing currently includes: deluxe winch bar, 9500lb Warn winch, IPF spotties, side steps with front protection for flares, rear bar with dual tyre carriers, front and rear Air Lockers, dual battery system, 60L ARB fridge, on-board compressor, roof rack, side awning and OME shocks and springs.

As I fuelled up at Mt Dare, the guy filling my truck thought I actually worked for ARB because of all the gear I had (including my apparel).

The Brighton store was so helpful with my purchases.

Well done to the designers and to ARB in general.

Iohn Miller

Thanks for your email, John,

We love receiving letters from people who are getting out there and exploring Australia, and it's fantastic to hear that you're happy with all the ARB gear you've had fitted. From the pictures you sent it definitely looks like your Patrol got a good work out, and it's a great advertisement for ARB - no wonder the guys thought you were an employee.

- 3. The on-board kit comes with an anti-vibro chassis to combat the damaging effects of heavy road vibrations on your internal compressor components. The portable compressor comes with a chassis designed to integrate with the carry case and maximise the remaining room in the box.
- 4. The price for installing a CKMA12 on-board kit is standardised, and most of our fitters have done many of them. Adapting a portable compressor for use as an on-board Air Locker activation system is not a standard procedure, and may involve additional costs.

It is also worth noting that you can purchase the on-board (CKMA12) kit as well as a complete tyre pump up kit (171302) for slightly less than the price of a portable kit (not including installation).

Good luck with your decision!

Daniel Bongard (Engineering Supervisor)

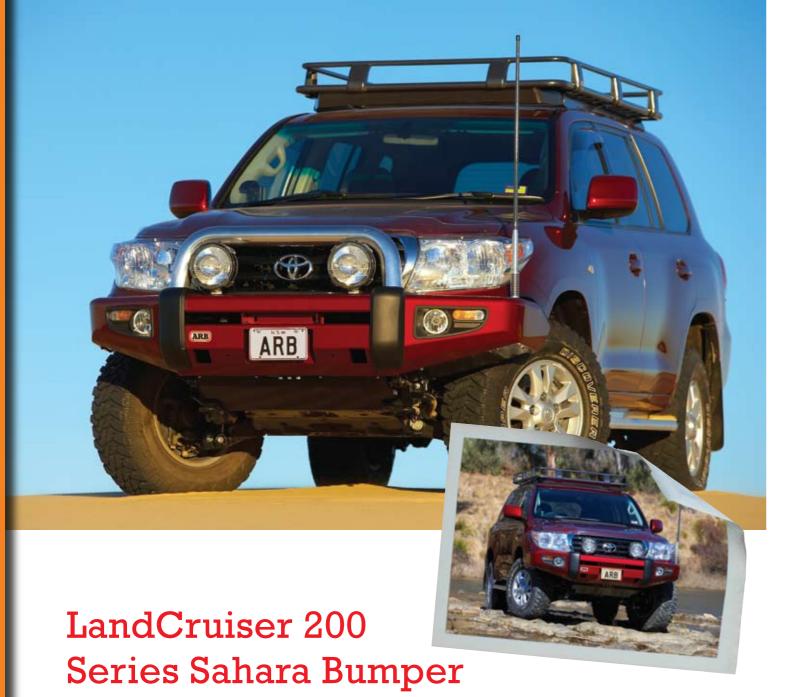


Many of the locations you mentioned in your letter were the same places we visited on ARB's Outback Experience last year. This trip involved heading into the Outback with a handful of overseas journalists on a 5000km plus route to show them the best of Australia and demonstrate ARB products in action. It was an outstanding success, as your trip obviously was. These remote areas really epitomise the essence of the Outback and test a vehicle over various conditions and terrains. The long distances, corrugated roads, extreme temperatures and unpredictability of the Outback really requires that only the best equipment is used when travelling out there. This is the reasoning behind ARB's continual endeavours to create stronger and more durable accessories. We figure that if they're tough enough for Outback conditions, they're probably tough enough for most other places in the world. And the fact that you undertook such a massive trip, and experienced so few problems, highlights this perfectly.

Keep up the 4wheeling, John, and I hope your next adventure is just as successful.

Debbie Kaye (Editor)





Following the release of a range of accessories including deluxe bull bars for the 200 Series LandCruiser, ARB now offers a Sahara bumper, providing vehicle owners another frontal protection option.

The extensive testing and analysis undertaken by ARB on the 200 Series to develop the mounting system for the already released bull bars was also utilised in the design of the new Sahara bumper. This exceptionally complex and sophisticated mounting system was specifically engineered to suit the unique size and modern appearance of the LandCruiser, while catering for all its necessary functions including vehicle protection and winching capabilities. Adapting ARB's traditional five fold wing design for the development process has resulted in a bumper that really complements the style of the 200 Series. The leading fold of the pan and wings features a large 30mm radius, and the centre tube, unique to all our Sahara bumpers, is an upsized 90mm to further tailor it to the vehicle's size. All of this has been achieved without compromising on strength or functionality, with the bumper retaining its air bag compatibility and optimising the vehicle's approach angles.

In accordance with our more recent Sahara bumper releases, the bumper for the 200 Series can be configured both with and without the polished centre tube, depending on individual preferences. Able to accommodate a selection of Warn low mount winches for increased practicality when off road, the bar also incorporates dual Hi-Lift jacking points in the pan, and the retainment of the original equipment tow hooks for additional assistance during a recovery situation. Other features include quality urethane buffers, injection moulded fog light/turn signal surrounds, IPF mounting points to suit the full range of round and rectangular lights, and two CB aerial mounting holes that come with 16mm plastic plugs for when not in use. This bumper has also been designed so that OE parking sensors can be refitted.

All these elements combine to result in a practical and versatile protection option for LandCruiser 200 Series owners. Stay tuned in upcoming newsletters for further releases for this vehicle.

Part no: 3915040 or 3915050 (with headlight washer provision)

Rainforest Challenge 2008

In the lead-up to the 2008 Rainforest Challenge, contenders from all over the world have confirmed their entries into this year's event, including a number of all-women teams.

Following the 2007 event, organisers are ensuring that they are as prepared as is humanly possible for what the unpredictable monsoonal conditions will throw at them. However, there will no doubt be a few unavoidable surprises in store to keep everyone involved on their toes.

Event Founder and Director, Luis J.A. Wee has the following message for competitors ready to battle it out from the 5th to the 14th of December:

"We have 'unfinished business' to settle with the dreaded Terminator at the Twilight Zone of Hulu Terengganu, Malaysia. It's a continuation of our epic edition last year where we were disrupted by the wrath of Mother Nature."

From last year's monumental adventure, and subsequent rescue, a book is currently being compiled that is due to be released in time for the 2008 RFC. It includes contributions from competitors and marshals, detailing some of the hair-raising stories of survival and camaraderie

For all the latest details on this year's event, visit the website at www.rainforest-challenge.com.





ARB Warn Outback Challenge 2008 DVD

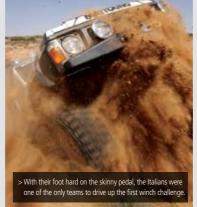
The 2008 DVD of the ARB Outback Challenge, Australia's annual Outback 4x4 event, is now available from ARB stores. 50 teams from all over Australia competed, as well as international entries from the UK, South Africa, Poland and Venezuela. Featuring 2.5 hours of footage taken over the eight days, viewers can check out action from iconic locations including Stephens Creek, Broken Hill Quarries, Denian, Poolamacca, Viewmont and Nundooka. For all the latest information on the Outback Challenge, visit the website at www.outback4x4challenge.com.

> Part no: 217254

4X4 ACTION >













Outback Challenge Morocco

Article & pics by Chris Collard

10:45pm, April 24, the middle of the eastern Moroccan desert:

The sound of crumbling sheet metal thundered through the cab as our roof-mounted IPF lights hit the tarmac and everything went black...

As a journalist, covering an off road race is always exciting. But covering an event like the Outback Challenge through two thousand kilometres of Morocco's wildest backroads is an adventure in itself. We were three days into the six-day event and heading towards the night's bivouac when the accident happened. Though my shoulder felt like it was broken, I managed to crawl out through the shattered window and scramble onto the pavement. I could hear the vehicle behind us, another media team, breaking hard as their headlights illuminated the cloud of dust still swirling through the night air. Though banged up, bruised and bleeding, we were alive, conscious and had all our limbs intact.



Flash back five days earlier and we were in Sete, France, loading forty-plus vehicles below the decks of a ferry. The trip across the Mediterranean to Nador, Morocco, was on a boat which had been resurrected from a mothball fleet. Nador is like any international port: busy and confusing with trucks, cars, mopeds and hundreds of people jockeying for position to get through customs. Clearing passports and paperwork for our 86 people and vehicles took the better part of the morning. But by 1pm we were staged in a dirt parking lot for the beginning of the race.

The first 250 kilometres were on public roads from Nador to the first checkpoint at Ain-Benimathar. For this reason, competitors were scored on a precise arrival time based on posted speed limits. From Ain-Benimathar, all bets were off with regard to speed as teams disappeared into clouds of dust in the desert. With the exception of the one team that had mechanical issues within two kilometres, we would not see the others at the bivouac, 200km to the south at Djebel Klakh, until well after dark. The team from Sweden, who broke down 100km into the piste, would not catch up until the following night.

Morocco has a long history of survivalists and is the perfect setting for an event like the Outback Challenge. The region has been invaded and occupied by a dozen different countries and empires over the past 2500 years, and has a reputation for tough and venerable people: the nomadic herdsman of the western Sahara, the Bedouin, and the resilient Berber of the Atlas Mountains.

With its northern port of Tangier placed strategically just a few kilometres from Europe, Morocco has sat at the crossroads of commerce and conflict since before the Romans. During our week in the Moroccan Outback, we would meet the descendents of these hardy souls, sit cross-legged on wool mats sipping sweet mint tea, and dine on traditional Moroccan Tajine, a fire cooked stew of goat, potatoes, onion and spice.

The Outback Challenge Morocco, cousin to the well-known Australian ARB Warn Outback Challenge, drew from an international field of competitors: Spain, France, Italy, England and Sweden, with one driver, Lawrie Sternbeck, flying in from Australia. To endure the next six days, competitors would need to tap every resource available: navigation and orienteering, winching and mechanical ability, and basic desert survival skills. And because the premise is to have vehicles that are streetable but also able to function in a competition setting, the majority of the field were driving modified full-bodied factory 4x4s. Exceptions were two Tomcat buggies from England, one of which would take home top honours, and a tube-framed rock buggy that dropped out due to cooling system issues.

Scrutineering rules and requirements were fairly straightforward and simple. Teams were required to have sand tracks, a winch and D-shackles, roll cage, full harnesses and anti-ejection nets, winching anchor, tow-strap and so on. They were allowed to have a support crew for assistance, but the catch was that they could only receive help in certain sections, or at the nightly bivouac. Otherwise, they needed to be fully self-contained with food, water, fuel and spare parts.

The daily routine went like this: at the driver's meeting each morning, teams were given a map book containing GPS points and crucial navigation information. Some GPS checkpoints were attended by marshals, other points were simply rocks painted in three colours to which teams were required to document the order of the colours. Teams would also receive information about the overall team placement but not scores. In other words, no one knew the gap between first and last place. So the start of each day was a scramble to the finish, to win. And no one would know until the final night in Marrakech who would take home the gold.

When the dust settled at the end of each day (which was always well past dark), we'd travelled several hundred kilometres and our bivouac would be in a different place. The centre of camp each night was the Outback Imports big Mercedes support truck. Equipped with a generator, welder, shop tools and 360-degree floodlights, it was a hub of activity and teams worked through the night repairing everything from broken differentials and axles, to electrical and cooling issues. The truck even had a water tank for teams to get a cold shower if needed.

From the deserts of the Western Sahara near the Algerian border, our route book directed us south towards the palm-lined village of Mhamid. Mhamid is the end of the road and sees the last of the Draa River as it seeps into a vast expanse of sand dunes. Heading west on a narrow dirt track, we ascended from the valley floor into the Atlas Mountains. The rocky piste became an endless switchback to the heavens as we passed through the Berber villages of Agmour and Asarrakh, ancient encampments of mud and stone clinging to the mountainside.

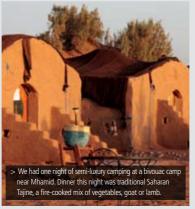
















Above, young Berber women worked the terraced fields and collected spring water while the men sipped tea under shade trees or were called to pray beneath the minarets of century-old mosques.

Setting our swags out each night reminded me that we were truly in the middle of nowhere. And because most villages in these regions receive electricity from a generator (if they have any at all), when it shuts down at night, the only light for several hundred kilometres is that from a billion stars.

Because the Outback Challenge Morocco is only three years old, it is still in its infancy and is going through logistical growing pains. This is one of the reasons chasing the race became such an adventure. We media types were given the racer's map book and a military ration in the morning. We couldn't run the race route, and finding the special event stages before the racers arrived was a constant challenge. We were often late or completely in the wrong place. But as I like to say: "You are never lost, just exploring a bit." However, the organisers are dedicated to clearing up these issues, setting the event up from a central bivouac and making the Outback Challenge Morocco a world-class event. Major sponsors include ARB, BFGoodrich and EcoTech, and the event is organised by Outback Imports in France, and Euro4x4parts. With the Dakar rally cancelled this year and moving to South America next year, if the organisers can streamline this event, the Moroccan Outback Challenge may fill the void for North African 4x4 competitions.

When the chequered flag dropped in Marrakech, the podium was split between the Team and Solo Class: Top ranks for the team category went to the French brothers, Nicholas and Jerome Montador, second to Brits. Chris Armelin and Paul Bass. While

top honours in the Solo Class were taken by Andy Chaplin and Charlie Walton from England, followed by Pascal Bord and Steven Fontaine of France, and Mickael Francois and Benoit Richard also of France.

Fitting for the event, champions of both classes were running BFG Krawlers, ARB lockers and using Warn winches. When interviewing some of the contestants, they said it was the most difficult event they had competed in: exceptionally long distances, gruelling special tasks, and a logistical nightmare for their support crews. But most said they would be back again, better prepared for the challenges of the Moroccan desert. Personally, we survived our midnight crash, getting lost in the desert, eating cold military rations and sleeping on the ground at rocky bivouacs. But life is an adventure, and the Moroccan Outback Challenge is all about the adventure.

Seven days in Morocco

Day One: 415km, Nador to Djebel Klakh: orienteering

Day Two: 340km, Djebel Klakh to Boudenib: navigation, winch wall, rock crawling course

Day Three: 330km, Boudenib to desert bivouac: navigation/orienteering

Day Four: 140km, desert bivouac to Mhamid: creek run, winch wall, navigation

Day Five: 210km, Mhamid to Fourn-Zgata: four metre winch wall, navigation

Day Six: 240km, Fourn-Zgata to Taliouine: two rock crawling courses

Day Seven: Two special sections and 200km to Marakech

Tech Tricks of the Outback Challenge Morocco

Due to the harsh conditions of North Africa and the knowledge that there would be a dozen special tasks set up by the officials, teams had a full array of additional equipment, including on-board GPS systems, long-range fuel cells, Hi-Lift jacks, on-board air and full racks of driving lights. As we might expect, all were running solid axles, most with modified factory configured aftermarket suspension, a few with custom four-like setups. Tech information provided some interesting details of what the pros are using:

Lockers and axles: All teams were running front and rear lockers of which 30% were factory units and an impressive 70% choosing ARB Air Lockers. Most axles were OEM units upgraded with Aschroft internal, with several teams running SpiderTrax 9-inch Ford and hi-pinion Tera 60s.

Winch selection: All teams also utilised front and rear winches. It was no surprise that 85% selected the Warn 8274 for its speed, pulling power and durability. Some were modified with twin motors and many were upgraded Gigglepin internal gearing and shafts.

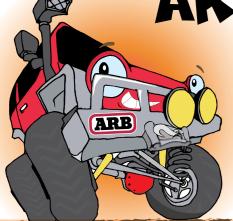
Tyres and wheels: Tyre selection leaned towards the BFGoodrich Krawler and M/T (60%) with Interco, Maxis, Simex and Dunlop picking up the rest. Beadlocks are a must for an event like this and selections varied between Champion, Allied, Mach 5 and OEM units, with a large number of teams running Staun internal beadlocks.

Under the bonnet: With the exception of the buggies, teams were running slightly modified OEM mills, diesel outweighing gas by ten-to-one. Gearboxes were mostly OEM and all but one were manual.

Vehicle choices: As we might expect, this was weighted towards Land Rovers with a good showing of Nissan Patrols. The rest was a mix of Jeeps, Mercedes and buggies.



ARB KIDS



Hey, kids, Fourby here!

It's so much fun hearing about all the things you guys have been up to on your weekend and holiday adventures. Keep sending me your drawings and letters like the ones below for your chance to win some awesome prizes. And check out my new competition on the next page!





From year old Daymon from Kingaroy in Queensland has drawn a fantastic desert pic – we love the cacti!







* Nicholas from
Chandler in
Queensland has sent
us this great drawing
of a 4WD complete
with ARB bull bar
and winch.



We were really impressed with the detail that 14 year old Chris put into his drawing. Great work!



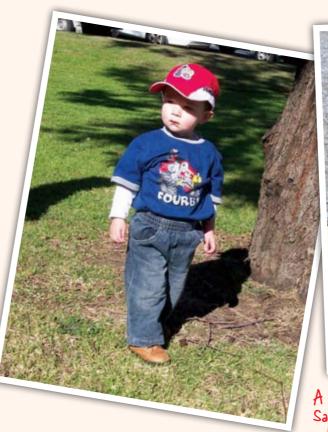


My Dad brought home a copy of 4x4 Action mag from our local ARB store. I saw all of the great pics that other kids have sent in so I had to sit down and draw my Dad's Nissan Navara. We love it as he takes me and my brother, Jarred (age 3), four wheel driving all the time. WE LOVE MUD!!!

Luke (age 5)

Wear Fourby & Win!

This issue, we've introduced a new competition for all you kids out there! All you have to do is send us a pic of you in your Fourby clothing – you could be in a 4WD, camping, with the family pet, or just at home. We'll publish some of the photos in the next newsletter and our favourite one will win a gift voucher.





A big thanks to Jed from Tamworth and Samuel from Melbourne, who sent in their entries to kick off the competition!

Kids' Giveaway

Send your letters, drawings and photos, including name, address, telephone number and t-shirt size to:

> Post: ARB 4x4 Accessories
Marketing Department
PO Box 105
Kilsyth VIC 3137

> **Email:** marketing@arb.com.au

Every issue we'll give our favourite entry a voucher and Speedy Seal Tyre Repair Kit, and all other entries that are printed will receive an ARB Kids' Pack.

Please include your details on the back, or attached to your drawing or letter, as sometimes the envelopes go missing!

If you want your letter or drawing returned, please enclose a stamped, self addressed envelope.





ARB Traction & Travel Bed

A show stopper back in the late 90s, the original ARB Traction & Travel Bed was designed to show off the capabilities of a 4WD vehicle fitted with ARB Air Locker locking differentials. The vehicle of choice back then was a 75 Series Toyota LandCruiser, one of the most capable 4WDs on the market. However, with a simple arrangement of ramps it was easy to get the vehicle to 'cross axle', leaving two wheels in the air spinning, halting momentum until the lockers were engaged.

In 2006, ARB decided to bring the Traction & Travel Bed concept back to life, with the aim of not only showing off the abilities of a vehicle fitted with ARB Air Lockers, but also the benefits of an Old Man Emu suspension package and the all round advantages of ARB steel protection equipment, along with a host of other accessories.



To demonstrate all these products as the vehicle travelled over a short length of simulated off road track, the new Traction & Travel Bed had to be able to show the improved approach and departure angles and the benefits of increased body-to-ground clearance. It still had to be able to simulate a loss of traction that could only be regained by engaging Air Lockers, and at the same time show it all safely and in a manner that would have spectators gaping in awe.

The design started with the building of a dirt track on the back of the property at ARB head office in Melbourne. A large 'table top' dirt mound with ramps either side was built with the help of a bob cat, and then the new vehicle of choice, a Toyota HiLux dual cab, was driven over it. Over a period of time, the 'track' was modified with a pick and shovel to give the desired effect as the vehicle pitched and rolled over it. From that point, measurements were taken that could help reproduce the track from steel.

A partial steel model was then fabricated to ensure all the measurements were correct before detailed CAD drawings were produced. As the new Traction & Travel Bed needed to be over 14 metres in length and the main platform 1.5 metres high, transportation and assembly was going to be an issue. The answer was to build it all as a mobile, trailer mounted assembly with a sophisticated hydraulic system that raised and lowered both the main platform and the ramps.

After two years of design and testing, having drawn on the expertise of a team of ARB personnel, the new ARB Traction & Travel Bed is ready to once again be an awesome show stopper. Be sure to attend its Victorian debut at the National 4x4 Show in Melbourne from October 23rd-26th.

New JK Wrangler Accessories

Since the release of the JK Wrangler,
ARB has been working on a range of
accessories for this vehicle including
protection equipment, suspension and Air
Lockers. And more recently, a number of
new products have been developed for
diesel models to make your Jeep even
more capable.

Safari's snorkel for the Wrangler has been built not only to fulfil, but to exceed the airflow requirements of the vehicle, ensuring it will effectively cater to the needs of JK owners. Each section and component of this snorkel model has been designed to ensure that the greatest airflow can be achieved along its entire length.

The Safari air ram's main purpose is to funnel cool, clean air into the snorkel body, and it also acts as a highly efficient water separator to remove rainwater from the incoming airstream, ensuring safe engine operation even in a torrential downpour. Another design feature is its ability to be rotated to suit certain conditions, such as heavy snow, to prevent the choking effects of snow build-up inside the air intake.

Manufactured to the highest of standards from durable, UV stable, crosslinked polyethylene material, the snorkel for the Jeep Wrangler is suitable for off road conditions all over the world.

Another incredibly beneficial accessory for a 4WD is a Long Ranger fuel tank, which will extend your vehicle's capabilities by increasing its travelling range. The new 68L auxiliary fuel tank for the JK Wrangler 4 door model provides an 80% increase in fuel capacity, bringing the total to 153L.

Specifically designed to cater for the rigorous needs of 4WDers, the 2mm aluminium coated steel construction provides strength and durability, and the standard ramp over angle has been maintained so as not to affect the Jeep's renowned off road abilities.

With full internal baffling, all Long Ranger tanks are MIG welded and pressure tested to provide the safest alternative for fuel storage. Jeep owners will be extremely pleased to hear that a new 38mm filler replaces the standard 26mm original equipment unit for improved filling, and a new dash mounted LED switch/gauge provides the user with the option to transfer fuel at the push of a button when required, while displaying available fuel in the auxiliary tank. Coming with a three year warranty and detailed fitting instructions, this product will give your Jeep the travelling range required to do some serious exploring.

Snorkel: > Part no: SS1065HF (RHD)

LHD under development
Fuel tank: > Part no: TA64D



New ARB Caps

Both adults and children can be decked out with the latest gear following the introduction of some new items to the ARB apparel range.

ARB's lovable kids' mascot, Fourby, has released his own cap, made from 100% cotton brushed drill and featuring a woven badge of him on the front. Coming in one size, the metal fastener on the back makes it easy to alter depending on the age of the child, and the cap incorporates a stylish, bright red and white colour scheme that kids are sure to love.

A modern, new Old Man Emu Insignia cap is available from ARB. Made from 100% polyester, this design also incorporates an adjustable strap with a metal, embossed buckle and is a comfortable option for protection against the sun this summer.

These caps add even more options into the range of head gear already available from ARB, so drop into your local store to check them out.

Fourby cap: > Part no: 217172 OME cap: > Part no: 217169



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A few years ago, a decision was made at ARB to no longer provide corporate Christmas gifts. Instead, the previously allocated funds were to be donated to a worthy charity organisation. A number of charities from all over the world have since benefited including the Northcott Society, the Australian Childhood Foundation, and more recently, the Kanchanaburi School for Deaf and Autistic Children in Thailand.

In 2008, ARB will be continuing this tradition, but with a slight difference. Instead of a cash sum donation, ARB has this year given a fully accessorised Mitsubishi Triton/L200 to help assist with the East Timor rebuilding effort.

Most people would be aware of the ongoing conflict in East Timor, which has been making headlines since the late 90s, resulting in serious long-term effects on the country's infrastructure. During the chaos in early 2006, more than 150,000 people were forced to flee from their homes due to the violence. Indonesia's proximity and close ties with Australia saw the government invest

substantial amounts of time and resources into assisting them. A number of organisations such as Rotary, Red Cross and Oxfam have also been working to provide food and other types of aid for the people displaced as a result of the unrest.

ARB's vehicle was donated to the ETDA (East Timor Development Agency), who are a grassroots facility that provide vocational training to adults in East Timor. Two of the major areas that organisations are assisting with in the country are employment and training, especially in remote areas. The majority of adults are illiterate, and training, such as computer courses, language skills, cooking, tourism and business management, will ultimately assist in increasing education and employment levels.

The donated Triton/L200 will be used both to deliver supplies and humanitarian aid, and to transport ETDA trainers to the areas that need it most. With poor road conditions, and few people with the skills and ability to maintain them, a properly equipped four wheel drive is an essential commodity for an organisation such as the ETDA.

The areas most in need of assistance are more often than not extremely remote, with no luxuries such as electricity, and very little or no money. The inhabitants have to rely on growing and trading items in order to survive, and therefore one of the most important aspects about providing aid is ensuring that only what is required gets to the right places. This task is something that Rotary International is heavily involved in, so ARB worked in conjunction with them to organise the donation.

Rotary is made up of more than 1.2 million business and professional leaders, united worldwide to provide humanitarian service, encourage high ethical standards in all vocations and help build peace and goodwill in the world. Since its inception in 1905, Rotary International has made a considerable impact around the globe in regards to many issues such as disease control, education, environmental degradation, literacy and world hunger.

Rotary helped with transportation and delivery of the Triton/L200 for ARB to East Timor. The particular district of Rotary (9/800) that assisted us has a logistics man on the ground in Timor, not only to ensure that donated items are delivered to the right places, but also to ascertain correct requirements for other regions. This goes a long way in ensuring that as many people as possible are benefiting from the donations. ARB is delighted to be able to make a contribution to such a worthwhile cause and would like to extend a big thank you to Rotary for helping us make it possible.



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AVA ACIDION







When we last heard from these seasoned travellers, they were camped on the border of Namibia and Angola, enjoying a much deserved rest. Here, their journey continues...

After heading to Etosha National Park, we spent three very enjoyable and interesting days 'animal watching' before crossing into Botswana (pop.1.6 million and Africa's wealthiest non-oil producing country). The first place we wanted to visit was Nguna Lagoon. On arriving at the village, Etcha, we were confronted by floodwaters along every track. Viv rang Nguna and was told that there were already a number of vehicles abandoned with floodwater lapping their bonnets. We still had a long way to go on this trip, so discretion became the better part of valour and we headed for Maun, one of the larger towns in Botswana. We arrived at the camp which had a sign informing: 'Stay in your tent if lions and hyenas come into camp - otherwise you will be eaten'. The amenities block had an eight foot concrete crib block wall backed up with an earthen levee to stop the elephants smashing the buildings, which they have been known to do.

We decided to go to the town of Kasane on the Chobe River and use that as our base for forays into the National Park. I had to laugh on one trip into the park when we stopped at a designated picnic place where you are allowed to leave the vehicles. There is a toilet but no fences. Mind you, there is a sign that says: 'Stretch zone max 10m from vehicle'. I guess from trial and error they have worked out that you have some hope of reaching the car from that distance when confronted with a charging lion.

It was now time to cross the Zambesi River, the border between Botswana and Zambia. There are two ferries operating, and just as well, for there are scores of semitrailers on both sides of the river waiting to cross. As it was, it turned out to be the most chaotic and stressful border we crossed on the whole trip, mainly because of the Touts, or as some people call them, Ticks (because they are so hard to get rid of). They try to get money

from you for helping with the red tape, and can be really pesky. Thank heavens for Ron and Viv's experience!

We spent four days in Livingston during which time we took a helicopter flight over the awesome Victoria Falls. It was also time to say goodbye to Gaye who had been with us for three weeks and was returning to Melbourne.



Lusaka, Zambia's capital (pop. 2 million) was our next destination. On our way there we started to experience the first of many badly potholed bitumen roads. There were good supermarkets in Lusaka and we topped up our supplies before moving on. South Luangwa National Park was our next destination. We again came across some long sections of badly potholed roads, made even more hazardous when you are ducking and weaving around them, and trying not to hit people, cyclists, pigs, ducks, chooks, oxen carts, donkeys, monkeys, and of course other vehicles coming toward you doing the same thing. After a long and tiring day we made it to the Wildlife Camping Ground on the Luangwa River, and with the sun setting, sat relaxing, looking out over a couple of dozen hippos. The sound of them talking to each other, and the birds and monkeys putting in their two pennies-worth, made it a classic African experience.

During the next few days we did some game drives where we saw lots of different animals, including lions on a couple of occasions. On the last day Ron and I had to get out our shanghais, once again, to drive off the monkeys that had invaded our camp.

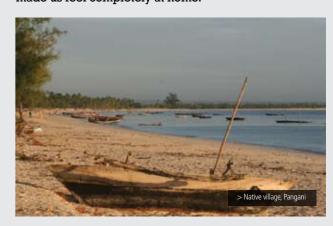
As we crossed into Malawi, we realised we had already been on the road three months, and it had gone by incredibly fast. Once in Malawi, the roads improved dramatically and it was a pleasure to be able to look at the magnificent scenery we were driving through, instead of playing 'dodgem cars'. After driving to Lilongwe, the capital of Malawi, we camped at the Lilongwe Golf Club. 20% of Malawi is taken up by the beautiful Lake Malawi, and we made our way to a camp called 'Cool Runnings' at Senna Bay, run by a very interesting lady from Zimbabwe called Sam. Lake Malawi is a freshwater lake 365km long, up to 70km wide, and, at the north end, more than 700m deep. Sam is a nurse and, apart from running the camp, also does a lot to help the locals with education and health matters. AIDS is a huge problem, and Sam says in her little area there are about 70-80% of people with the disease.

After a great time at 'Cool Runnings', including going out in a boat with some locals to do snorkelling, we headed for Monkey Bay on the other side of the lake.

While servicing the vehicle back in Zambia, I had noticed the rear axle seal leaking a bit and tried to get one in Lilongwe. The Ford dealership there was most helpful but didn't have one. They suggested I try in Blantyre, but Ron and Fred were sceptical. So, after a pleasant day at Monkey Bay, Fred, Helen and myself headed south to Blantyre while Ron and Viv stayed and spent some more time there. Again, the Ford people were very helpful, but it turns out the only F250s in Africa are the six cylinder versions, and they have a smaller back axle assembly. I rang Rocket Sports Trucks in Melbourne and Don the manager organised DHL to freight the seal to Dar es Salaam in Tanzania. It only took $3\frac{1}{2}$ days to reach there – amazing.



We headed for the town of Liwonde to meet Ron and Viv before travelling to the border post at the town of Chiponde. The Malawi side was all right, but the Mozambique post was very slow, mainly because they only speak Portuguese. It was then we had a stroke of luck in the form of an Aussie missionary called Phillip Piper. Phillip spoke fluent Portuguese and he sorted things out in no time, and to top it off, insisted we stay at his place for the night. Cuamba was where Phillip, his wife Nicola and their three children lived. It was a long drive on a pretty good dirt track, the last $1\frac{1}{2}$ hours in the dark, with the dust hanging in the still night air. We were really spoilt – Nicola had the guest quarters ready for us and a beaut dinner as well. They are a lovely family and made us feel completely at home.



After leaving the Piper family, we reached the town of Malema and turned toward Nampula, one of the largest towns in northern Mozambique. We could not believe how bad this track was, but at least the scenery was spectacular. After Nampala we were back on a good tar road and made our way to the Isle of Mozambique, which is a World Heritage site.

When we were at 'Cool Runnings', Sam had told us of an Aussie who had set up a camp at a place called Wimbe Beach just outside the town of Pemba. Wimbe is your classic tropical paradise – white sandy beach, turquoise water and coconut palms swaying in the gentle breeze. I knew as soon as we drove into 'Russell's Place', as it is known, and Russell came out to greet us, we would enjoy our stay – and of course we did.

Stay tuned for the next part in the Summer newsletter when the travellers continue their epic journey toward Europe.

> INSIDE ARB

Victoria AUSTRALIA

ARB Ballarat

For this issue's Inside ARB, we head to central Victoria and take a look at ARB Ballarat and its long-time owner, Tony Hendy.

Prior to owning ARB Ballarat (formally Ballarat Off Road), Tony worked in the construction business until his love of 4WDing on the weekends inspired him to pursue his passion to own and run a 4WD store. He has always been, and still is, an avid recreational 4WDer, with an impressive track-record of travelling adventures under his belt. And although he doesn't get out as much as he'd like to these days, he still enjoys the occasional weekend getaway in his HiLux to some of the favourite local haunts, such as Wombat State Forest, Mount Cole and Enfield State Park.

In August last year, after months of planning and preparation, Tony moved into a brand new, purposebuilt store which took on the name of ARB Ballarat. With more than 15 years experience in the industry, Tony is an impeccable source of knowledge and advice on all things 4WD related. Not only can he provide customers with the complete range of high quality ARB accessories, he is also on hand to give tips and hints on how to use them, where the best place to go is and when the optimum time to travel is.

Tony Hendy and his reputable crew have come a long way in the last 15 years, from 2 staff to 7 currently, all of them having a keen interest in 4WDing.



With a full workshop and spacious showroom, ARB Ballarat fits and sells ARB's full range of 4x4 accessories, along with a number of additional services including vehicle servicing and repairs, diesel injector and pump reconditioning, and South Australian Desert Park passes. So whether you need to give your vehicle a complete accessory fit-out, purchase a couple of smaller items, or simply want to chat about your next 4WD trip, the team at ARB Ballarat will be only too happy to help you out.

