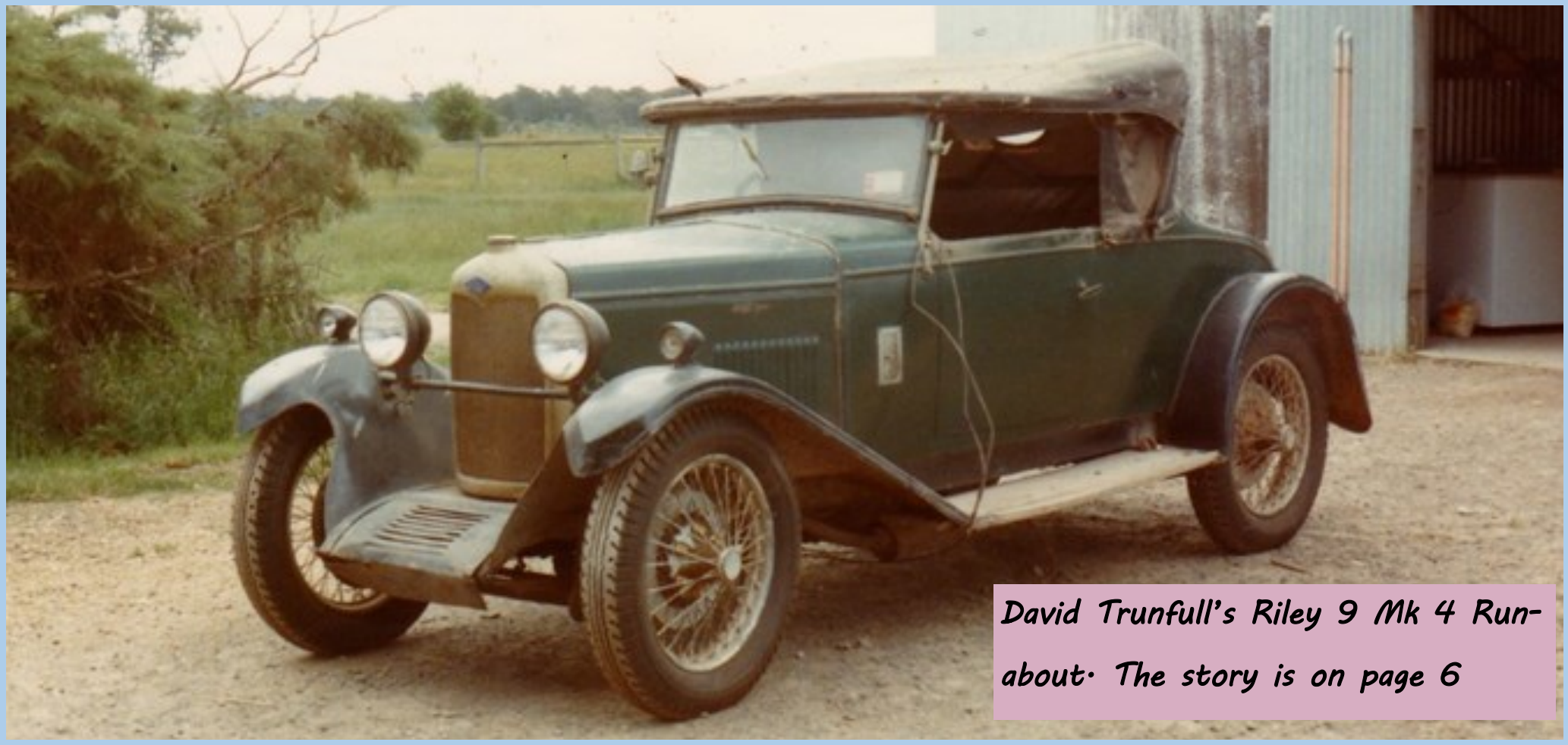
Riley Restorer

A magazine for Riley restoration enthusiasts in Australasia Inc

May 2023



David Trunfull's Riley 9 Mk 4 Run-about. The story is on page 6

Editorial

The slight name change for the magazine was to include our New Zealand member. Another name change is the result of incorporation. This week our bank account details will change to suit incorporation (see page 5 for the details)

The April general meeting didn't happen because the Office of Fair Trading took such a long time to scrutinise our constitution that we did not have incorporation until a week ago.

At the time of the April meeting date we did not have sufficient details to create a web address either.

If you don't have a copy of the constitution and would like have one, it will be sent to you on request.

We have also started a spare parts account as we want to increase the variety and amount of new spare parts. A small focus on parts is in this magazine. Have you a suggestion about parts that should be stocked?

We are still seeking more members. Last week a non member asked the club had a spare diff inlet plug. We did and it was sent to him without charge. Restorers need bits. I would like to invite restorers to join the club so they can benefit from our parts and joint experience.

I have a new mobile number: 0477 386 880.

The Editor appreciates receiving articles by the 21st of the month

Riley Restorers Club of Australasia Inc Committee

Position	Name	Email	Telephone
president	Wayne Powrie	Wayneapow @gmail.com	0418 373 104
Treasurer	Doreen Wheeler	Doreen.w.wheeler @gmail.com	0400 049 493
Secretary	Philip Wyllie	philip.w.wyllie @gmail.com	0477 386 880
Web coordinator	Marshall Holmes	marshall.holmes @outlook.com.au	0477 377 109

Spare parts

New spare parts may be purchased by contacting the secretary who will do his best to dispatch them on the same day . Ask about our second hand parts.
A current list of parts can be found on the last page of the magazine. Ask also about businesses and trades people who provide quality service.

Contents

April outing

As you do, prior to the first garage run of the RR club, Albert, our 1950 drophead's oil and water was checked. The tyre pressures were checked, brake linkages were looked at and a few miner adjustments made. After that a test run was undertaken. Everything was fine so Albert was ready for his first outing since January. Keith Walker, president of our NSW Riley Motor club sent an SMS and an email to cover the travel as Albert is on club rego. Then on the morning of the outing Albert started easily, Doreen and I drove down the driveway onto Treehaven Way and found Albert had no power under load. The Mitsubishi electronic distributer components were breaking down and Albert had no get up and go. A quick decision was made and our friends, Wayne and Louise were happy to take two passengers in the back seat of their 1950 RMB, Marilyn their very original 1950 RMB and Albert was returned to the garage.

Below from the left: Wayne Powrie, Louise Buckland, Colleen and Mel Carey and Doreen Wheeler. Marilyn the RMB makes up the backdrop.

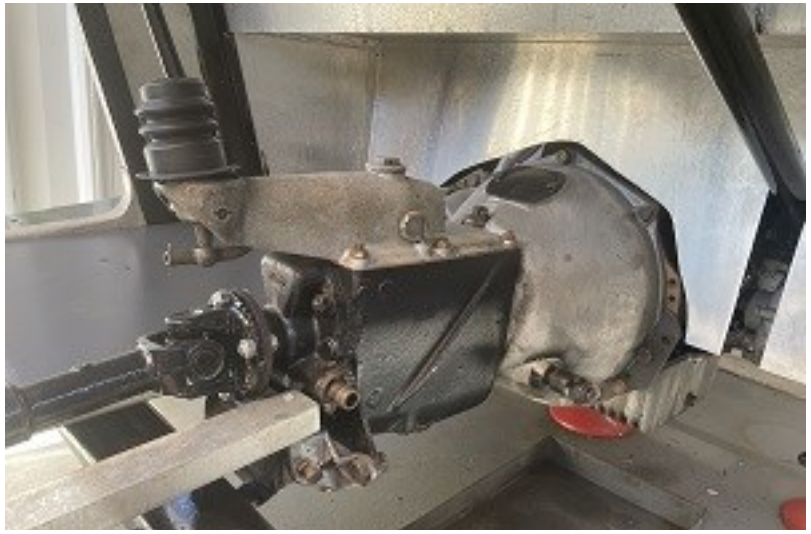
Marilyn, performed faultlessly down the Maleny hill, onto Steve Irwin Way, along the Bruce Highway parking lot and onto the Bribie Road. Thankfully Jimmy Barnes was not singing at the Sandy Point Hotel that weekend so there were no traffic snarls. The GPS took us along the Bribie Island Road to the correct address. We arrived at Mel and Colleen's home around 10.30 am – just in time for an amazing morning tea that included jam tarts, fruit cake, jam and cream scones and dry bickies with cheese and pickles. Morning tea was taken overlooking the water on which some rather lovely boats were moored.

After morning tea, our host asked if the ladies minded if he showed us men his cars. Alongside the house was some cleverly designed sheds and outside one of them was a Riley Imp special. Amongst Mel's connections is the Caboolture Aero Club and among their membership is a person Mel described as an aircraft 'metal basher' who has shaped the tub and bonnet of his Riley special in aluminium after the fashion of a 1933 Riley Imp. Of particular interest to me was the RMA power plant, gearbox and power train. The differential is not Riley, and a propeller shaft connects the gearbox to the rear axle. There are hydraulic drummed brakes front and rear. The steering is based on a Riley 9. As yet, there are no pedals, but a Holden master cylinder is waiting for some attention. Wiring had not yet been considered. The fuel tank is MGTC style. And it has 19 inch wire spoked wheels. An interesting project for an imaginative enthusiast.

Above: An older picture of the Imp special. The photographer forgot to take an up-to-date picture as he was busy under the Riley thinking about brakes

While lying under the Special consideration was given to possible pedal arrangements. The RM pedals that I had promised to bring were still in Albert's boot and I was not sure that they would work. If the clutch pedal was connected directly to the clutch shaft the driver might need some strong calf muscles. The Riley brake pedal was designed to match an underfloor master cylinder while Mel's holden master cylinder was designed for a hanging foot pedal with a rod that pushed directly into the cylinder itself – no linkages. And so my line of reasoning continued under the vehicle. Maybe a reader might have a suggestion?

Below: The RMA power plant



After looking at the special we moved on to the front garage where a rather rare Ansaldo is waiting Mel's attention.

Above: The Ansaldo and to the right his boat tail.

The Instrument board was interesting. The oil pressure gauge is Italian, the speedo is Jaeger and I am not sure about the tacho or fuel gauge.

It has a long stoke 4 cylinder power plant and three speed gearbox that might be capable of some pretty respectable speeds. The brake drums were finned and narrow like the early post war RMs. And braking was via rods so the vehicle may be fast but slow in stopping.

All of a sudden it was after 1 pm and lunch at the local RSL was in order so the party moved on and we reconvened over lunch. As you can imagine there was a fair bit to say about Albert's lack of get up and go. The time was partly focused on possible braking systems for the Imp special and much admiration was focused on Wayne and Louise' RMB.

The next day was spent fossicking through my Lucas distributer bits and sufficient parts were found to make up a distributer with rotor button, spark plug leads, points and a cap. A little bit of time was taken up cleaning all of the contacts but when continuity was achieved the distributer was fitted and the engine started. Timing was achieved with the use of a dial gauge and Albert's timing was set at 8 degrees BTDC. He started easily, idled well and after some time he was taken for a spin and showed no ill effects from the change in his pacemaker. There are some very positive advantages in the Lucas system. First, you can see around the distributer, second, all of the wearing parts are still available and third an enthusiast can repair or replace the parts.

May and June Events

Sunday 28th May Run to Ipswich. Depart Maleny show grounds at 9am through Brisbane to view finishing of a 1949 RMB.

Sunday 4th June Monthly meeting. The meeting will be conducted at 74 Treehaven Way, Maleny at 11 am. The meeting will include discussion about incorporation, spare parts, new members, and frequency of business meetings. $2 Sausage sizzle lunch.

Editor's business meeting. The meeting will be conducted at Mel and Colleen's home on Bribie Island to develop content style and proof reading for the monthly magazine. Date to be set.

Sunday 18 June: Web site creation. Depart Maleny show grounds at 9am to the home of Marshall Holmes, 50 Cook Street, Northgate.

Thursday 29th June: Garage run to Wayne and Louise' home. Meet at Maleny show grounds and travel past Witta, through Conondale to Chinaman Creek Road, Cambroon.

Letters to the editor

G'day Phil, outstanding issue here! Especially the one on the RMB gearbox: I'm seriously contemplating a rebuild given the rather terrible noises despite the SAE 140 oil. But I need to listen to a few first to re-set the baseline of 'acceptable noise'.

However a couple of items that may help others.

With old car parts reluctance to be dismantled, I've found the best penetrating fluid [equal to the old Penetrance of my 12 years on this earth when used on my 1928 Singer Senior that mum bought for me] to be an equal mix of acetone and Auto Transmission Fluid liberally applied by an old oil can. Having inherited a 5 litre container of ATF from my late father in law, I'm set 'til I fall off the perch for the price of some acetone. Shelf life of the mix is limited to a few weeks. And it doesn't require elaborate cleaning afterwards either: ATF has quite good anti-corrosion properties and the acetone [judging by the smell] evaporates. And it is easily ignited, so take care…

And another way around a lot of angst is to procure an old domestic oven [240 volt variety , mine from our local Lions mart] with settings range from under 100deg C. add a plug and find a safe place on the floor on some bricks, and cook the offending item overnight at around 80/90 deg C. Then suitably gloved [that's too hot to handle!] pull it out, and after applying goggles, spray the offending inner part with a freezing aerosol as sold by Jaycar and others. This works particularly well with alloy body parts, but it works on cast iron housings or forgings. Keeping under 100 deg C means no metallurgical concerns, and with a bit of research on the components you can go much higher, but I've not found that necessary so far.

Goggles are an absolute must: with a directed spray thru a straw the freezing stuff can deflect anywhere, including and most likely, into eyes.

And it can be used in reverse, to ease assembly of bearings from the freezer into hot ancient/fragile castings. Or hot bearings [seal in a plastic bag and drop into boiling water] and cold shafts [kept in the freezer overnight in gladwrap]. Permutations are almost endless.

And I'm about [well, in the next few weeks] to drop the sump on the RMB to pull out the big end plugs and remove the grot that I should have done 40 years ago, but using an oxy torch on the crank with the non-contact thermometer in hand and the freezing spray. I shall advise what happens....plan is to not even dismantle the big ends.

Cheers, Iain Robilliard

Our new name and bank account details are:

Riley Restorer Club of Australia Inc

BSB 654 000

ACCT 64204052

Riley Restorer club spare parts

BSB 654 000

ACCT 64213445

Riley Nine Mark IV Runabout, Chassis No· 607470 Original Registration Number, Vic 164-355 Unknown Coach-builder by David Trunfull

A photo of this car was on the front cover of the “Blue Diamond” in October 1976. The photo showed it and a similar car at the Mitchell’s farm at Karnak in Western Victoria. John Mitchell Snr. bought it in 1934, and the photo dates from about this time.

I was to actually see it in the early 80s when I visited his son’s property in Buninyong (near Ballarat). The son, also called John, had been given the car on his eighteenth birthday in 1955.

In the 1990’s John jnr. started its restoration, doing much good work on it. It appeared in this state on a trailer at the Ballarat Rally in 1998. In 2002 John decided to sell the car, after he and his father had owned it for sixty-eight years. Despite the next owner’s good intentions, its restoration did not progress during the next sixteen years. When it came up for sale in 2018, I decided to buy it and see if I could get it back on the road.

Adjacent: Pick up day: Keith Morrison generously offered to pick up the car and with Brian Graham’s help we trailered it to my home in Rye.

Its petrol tank, firewall, dashboard, seats and flooring had all been stripped out, but these came with the car. During the Covid years, I decided to sort them out, paint them and re-assemble them. The firewall and petrol tank shelf were very crudely made, especially the latter. (The hole where the petrol tank protrudes into the cab, looked like it had been cut out with an axe!)

I collected many photos of the firewall area of Nines, and although my car looked similar to some of

them, I decided that mine was probably not original.

Although the petrol tank in the above photo doesn't show it, I actually got a good enough paint finish on it, using spray-packs and a bit of polish. Unfortunately, I was inexperienced and did not check if the tank leaked, which of course it did. The paint was stripped, and sent off for repair, and painted again.

I decided that at some stage I would remake the firewall and secure it from inside the cab, rather than from the engine bay side. Noel Wyatt had done this on his Nine, and it means that you can move the petrol tank about an inch further back, making engine removal a little bit easier.

The next stage was to see if the engine could be started, and assess its condition. This is beyond my pay grade, so when my old friend John Keane (who I thought had retired) said that if I could have the car delivered to his workshop in Blackburn, he would see if he could get it going.
Once again Keith Morrison came to my rescue, a trailer was hired, and we delivered the car to John.
As a friend, John Keane did much work on my previous Nine in the early 1980s, before he actually went into business repairing old cars.

As I had sent the magneto off to be re-conditioned, Grahame Glanville loaned me his spare, and it was decided to use a Morris Minor SU carburettor, rather than the Solex that came on the car.

Grahame also helped me by supplying the headlight internals and rims that were missing.
John got the car running, but it was obvious that the top end was not all that well. He decided to remove the engine and gearbox, and send the head off to be reconditioned.

With the engine out, I decided it was the ideal time to make a new firewall, as I mentioned earlier.

The Imp Special Story [continued] by Mel Carey

Having written a little of the background to this interesting little car for the last RRCA magazine I will continue with some details of progress.

Now that chassis welding is complete [in a fashion] three coats of a specialised black paint has been applied by brush to including the steering and running gear. Jack had made new running boards and mounts so time to weld them in place onto the chassis rails and trial fit the front panels which necessitated the drilling and tapping of the holes for the mudguard securing bolts into the top of the chassis rails. The purchase of steel bar 1 1⁄2” X 3/8” to make up the front mudguard support hoops were then bolted to the chassis and secured at the park light area with a small screw after drilling and tapping.

Previous column: the support hoops

Before reassembling the front bodywork and grill an electric radiator cooling fan was mounted to the outside of the radiator with ample clearance between the two, this should provide adequate cooling considering there is no room for a belt driven cooling fan between the engine and radiator.

I have used these electric fans before and found them very effective particularly used in conjunction with an electric controller for cut in temperature.

So we can get on with some of the smaller tasks.

All steering, suspension and running gear bolts and fasteners have been checked, tightened and split pinned where appropriate. Ball joint and swivel joints have boots and grease nipples fitted and greased.

The number plate and reversing light are now mounted on an aluminium bar below and across behind the spare wheel mounting. Why not have a reversing light as the gearbox has a reversing light switch?

I would have liked to polish the aluminium dashboard but it had picked up some deep scratches during the period of storage so the decision was made to paint it in a “crackle” finish which has come up ok.

The steering wheel on the car seemed to be original until I noticed some extra screw holes on the underside, its all steel and looks the parts so I was happy to use it, until, Jack came up with an original Bluemel’s “Brooklands” steering wheel.

These aftermarket steering wheels were like gold when I was a teenager so of course did my eyes lit up!

The wheel was in a very sad state with no plastic around the perimeter, just a very rusty ,thin steel rim and no centre bezel. An adjustment to the taper to allow it to fit the Riley shaft was made and then thought given to the wheels restoration.

Professional restoration cost was quoted at about $1,000 which was not an option for me, so, a thorough clean and application of a suitable rust convertor and then some investigation and trials of different binding I got to and bound it with black rope purchased from the local hardware store.

The centre bezel is fashioned from an aluminium motor cycle steering damper adjuster knob which is now secured with recessed screws through the hub then finished with the outer boss colour coded to the dashboard.

Much thought was given to the floor height, not being familiar with the model and having scanned many photos on the internet of Imp Specials before setting to and fitting the floor supports which I've made from aluminium angle screwed directly to the inner chassis rail, non structural 5/8" timber floor material was chosen and cut from templates made from cardboard. I'm still not certain I have that right at this stage but it is a start and can be altered if necessary.

The next task was to assemble and fit up the windscreen supports and frame. This windscreen frame has provision for a central wiper motor with two wipers all to be fitted to the top rail. It also has "Dot" fasteners across the outside top edge for provision of a canvas top if required which is unlikely from my prospective as I envisage a tonneau cover with a zip down the middle will suffice.

Jack had a pair of nice supports cast in brass for the windscreen that required drilling, tapping and fitting to the body, these were made to include the folding mechanism to lay the screen down onto the bonnet, in addition the aluminium weather deflector below the screen which has been fashioned to fit the curve of the scuttle and nicely fitted together onto the frame. Pilot holes were drilled and tapped using 1⁄4" BSF brass screws. This little job went well and is now awaiting glass.

I hesitate to mention the rear mudguards, the reason being that they are a bit of a problem.

As the car has been fitted with a later hydraulic braked Morris rear end with a wider track than the original the rear mudguards are almost protruding outside the wheel/tyre alignment. Combine this with mudguards that have obviously had a very hard life with bad repairs over the years make it a job beyond my expertise so we will put them in the too hard basket for the time being.

Current job is making up the crossbar to carry the headlights. I will keep you posted on progress

Cheers to all.

There are lots of hidden issues when restoring a Riley. In this case the hidden issue was the rather good sculptural prowess of a bog master. The headlamp pods that I had appeared to be in pristine condition and the spare wheel door, not in so good a condition were sandblasted. When the headlamp pods were back to bare metal, there was a lot of see through areas and the spare wheel door – well they rust in all sorts of places. Sometimes the bottom section needs to be replaced , sometimes one side is rusted out and sometimes the channel for the rubber seal is missing. In this case the driver's side was rusted out. There were spare headlamp pods in good condition hanging on the garage wall so it was decided to use them instead of repairing the originals. But of all the spare wheel doors, hoping for a new life, there was not a single one that didn't have crash damage or rust and none of them had rust in the same place. In the end it was decided to repair three of the best specimens.

Previous column: aeriated headlamp pod and one from two spare wheel doors

During a recent trip to Sydney a visit was made to the second-hand spare containers and a spare wheel door was found that had rusted out on the driver's side. I had one that was rusted out on the passenger side so the two were cut and welded together to make one complete door. On the other two, the channel for the rubber seal was rusted out. For a few moments, patching was considered but then the thought was discarded and it was decided to drill out the 10 spotwelds that hold the right angled metal that forms the top of the channel in place. The spot welds are easy to find with your forefinger. They show up as a small round depressions. They were marked with a fine point ink pen and drilled out with a 1/8th inch drill. Sometimes an inaccurate drilling will leave a portion of the two pieces of steel connected but they can be peeled apart. The bottom half of the channel was then cut off with a thin bladed cut off wheel.

Above: The channel for the rubber seal fabricated prior to welding it onto the door.

The replacement steel was cut out on a shop combination bending/ guillotine tool and then the right angle bend was made. Another piece of steel was cut and a right angle bend was put into it. This was cut into the two lengths that form the bottom of the channel.

It was spot welded to the larger top piece using a thick piece of metal as a spacer for the channel. It had just the right width to accommodate the wave rubber seal. When the door fabrication was completed. the assembly was welded to the top of the door and the job was complete in a couple of hours. A respectable result was achieved and it was easier to do than you might think.

Previous column: The channel welded onto the door

Dings and ripples were mostly taken out of the skin with a dolly and hammer and the welds in the channel were ground back and the step between the two pieces of new metal was filled the plastic and smoothed out. One of the preferred choices of panel beater/ painters is U Pol bog. It produces a paste that is easy to apply, mould and sand.

Above: The plastic is used to cover the joins between the new steel and the door. The wave rubber conceals the join.

The timbers were shaped on a band saw and screwed together The steel side pieces were cut out on the guillotine, painted and the holes drilled for the screws. The timber was then rebated with a router, sealed with paint and the metal side pieces screwed into place. The easiest way to fit the timber into the door is to open out one of the folds on the side flaps. The timber frame can then be pressed under the steel that forms the top channel and pressed into place in the door skin and the fold over side of the door pressed back to it's position to secure the timber frame. The top and bottom timbers can then be nailed through the steel skin to secure it in place. The preferred nails are bronze silicon and these can be purchased from a timber boat fixing outlet. The outside of the skin can then be smoothed out with a little bit of filler if it is required.

Below: The timber frame is cut out, fitted into the door and the joins adjusted to fit.

The last thing done was fitting the hinges and door bolt. The hinges are bolted to the door skin and screwed into the top timber and the door bolt simply needs openings drilled through the top and bottom parts of the frame and the bolt can be fitted into place.

Thrust bearings to fit into a Dodge steering box for a Riley RM pinion was required for my Side Valve.

A visit was made to Brian and he found two in the same British shop and three in different locations in the USA. He procured the two from England. He later telephoned me and they were delivered to the Treehaven retirement home inside of a week.

On an earlier occasion, prior to knowing about Brian's expertise, I needed a thrust bearing for a Riley 9 clutch. Bearing shops were contacted all along the East coast and I was told that the one needed was not available in Australia or couldn't be obtained. Eventually I found Brian, told him what I needed and he asked, 'how many do you want?'

I wasn't being serious. I thought I would just test him out. I said, 'three'.

I now have two spares. They came from the USA.

If you can't find what you need ask Brian and see if he can get them.

Regards

Phil Wyllie

Above: The fixing points on this box have been broken on more than one occasion. There are evidences of previous repairs.

The SV gear box was disassembled with some difficulty mainly as a result of a worn bronze bush that had been introduced to take movement out of the main shaft. It had taken a grip on the interior of the other half of the shaft and was reluctant to let go. But it did let go and the gear cluster came out without issue and so did the lay cluster. The other small issue was working out which selector finger could be removed first but that sorted the gear box case was taken to one of the best welders on the Blackall ranges and after looking at the box he agreed to build the fixing points and weld the fatigue cracks that ran from the fixing points to the casing. After three weeks he asked me to come and have a look at the result. The welds did not appear to flow into the original metal but it was impossible to determine what aluminium alloy was used to form the box when it was made.

Previous column: The welds completed

The work that he had done was actually very good and after saying so, it was taken home with the view to cleaning it up and assembling the new gears into the casing.

A plan developed with a hopeful expectation that milling would only take half a day and then the box could be assembled with its new parts. It didn't work that way. The box was set right side up on the mill bed. The remaining intact fixing point was used to steady the casing on one side and a block of steel was used to counter a mill finger that was laid over the oil filler opening on the other side. Two of the mill studs were joined to get the height required to hold the box firmly. In the end setting the case up took several hours. The issue was that at the top of the box the opening needed to be levelled on all four sides and the base of the box was round. A dial gauge was used to gain the closest levels possible. This was done by fitting a mill bit into the chuck and then fitting a dial gauge onto the mill bit. The bed was then moved forwards and sideways with the dial gauge finger running along the top of the gearbox opening.

Below: Milling started

Apart from removing the excess weld it was surprising to discover that what appeared to be a level opening had numerous dips and rises. It would have been very difficult to keep the oil in this box when the SV was running. Prior to using the mill further fixings fingers were set on the box including over the filler opening. In the end there was a 6 thou variation around the box opening.

The easy part came next. It took maybe 10 minutes to run the mill bit around the opening on the top of the box. I wonder whether that is the experience of those who work in a machine shop – hours of set up for a few minutes of work? After the opening at the top of the box was levelled the points that fix the gearbox to the chassis were milled to receive retaining bolts. No set up meant that this procedure only took 10 minutes and all of the excess weld was taken off the box.

Milling the fixing points on the bottom of the box was also an easy procedure as the top of the box was as level as the mill could make it. The box was simply flipped upside down, fixed on the mill bed with the use of the mill fingers and the height of the one fixing point that was not broken was used as a reference point for the other two fixing points. So after a long day the gear box was ready to be cleaned of swarf and rebuilt using the new gears obtained in Victoria.

Above: The fixing points on the bottom of the box milled

New RM parts available from the Riley Restorer club

All of these parts can be obtained from the NSW Riley Motor club at the same prices. Ignition and manifold studs were sourced from the NSW spares department. The parts officer; Paul Baee can be contacted on 0409 131 808.

Stainless steel Manifold studs, full brass nuts and washers

Ignition parts including reliable condensers so you don't need to keep half a dozen of them in your glove compartment

RM boot hinges

Ask Paul or the Riley Restorer club secretary about getting your spares.

RM , Riley 9, Big 4 and SV exhaust systems including stainless steel mufflers are available. Ask the secretary about the details.