



TORQUETUBE

Newsletter of Riley Motor Club Qld Inc September 2011

**A PRETENTIOUS LITTLE RILEY?
OR
THE FRENCH FLYING MACHINE.**



Editor: Bill Short
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Next Meeting:
Thursday, 13th October 2011.
**BRISBANE SPORTING CAR CLUB ROOMS
UNIT 16 / NEXUS BUSINESS PARK
23 ASHTAN PLACE
BANYO**

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Minutes From Previous Meeting

Minutes of the OGM of the Riley Motor Club, Qld., Inc. held at the Brisbane Sporting Club, Ashtan Place, Banyo, Thursday 8th September, 2011.

Meeting opened by President Ken Lonie at 7.57 pm with 13 members and guests present.

Apologies: Alan & Sheila Hill, Ross & Di Phillips, Robin Hull, Dorothy Cameron, Del Thomson, Ray & Bev Burrows.

Minutes from previous meeting:

Moved, John Romer, seconded by Bill White, that minutes be accepted. Carried.

Business arising from minutes:

Ross Phillips remains very ill but is showing signs of improvement. Di thanks members for their best wishes and support. Bill Short reported that members have shown support for an electronic copy of the magazine, and has received positive feedback on the production of the magazine.

Inwards correspondence:

1. Statement of account from the Austnet Group.
2. Newsletters - Blue Diamond, WA magazine.
3. Letter from OAMPS regarding the joining of the Austnet Group with OAMPS and that business will continue as usual.

Outwards correspondence:

Nil.

Moved by Matthew French seconded by Wendy Lonie that the inwards correspondence be received . Carried.

Treasurer's report August 2011

Balance as per Bank Statement, August 2011			\$7201.93CR
Income			
Membership fees	\$ 85.00		
2012 Rally sponsorship Deswick Mining Co	\$1000.00		
Interest	\$ 0.89	\$ 1085.89	
Expenditure			
Brisbane Sporting Car Club Room Rental	\$ 55.00		
2012 Rally printing	\$ 123.17		
Austnet Group Insurance	\$ 734.80	\$ 912.97	
Balance as per Bank Statement, September 2011			\$7374.85CR

Moved by Linden Thomson that his Report be accepted, seconded Eve Romer. Carried

Club captain's report:

- 11th September – breakfast run to Wynnum.
- 8th October- Open day at Eagleby retirement village
- 16th October – 10am morning tea at Donnybrook/Toorbul with lunch at the Beerwah Hotel.

Spare parts report:

Nil.

Registrar's report;

Nil.

2012 rally report: Moving ahead slowly. Some costings are exceeding expectations and require further investigation.

Editor's report: All submissions to please be received by the 1st of the month.

Website co-ordinator's report:

Nil.

General business:

1. Joyce Baker passed away this week.

2. Suitable land may be available at Woodford for a club house, associated with the railway museum. Bill White reported on a possibility of accommodation at the ex-CSIRO complex near Samford.
3. Brookland Books have produced a book on RM's with assistance from the RM Club. Contact Linden.
4. Bill White's RM back on the road.
5. John & Eve Romer's RM progressing well.

Meeting closed: 9.40pm

Secretary's Email: mgwfrench@bigpond.com

Obituary



Joyce Baker **27.2.1920 – 30.8.2011**

Joyce Baker of Mapleton was surrounded by her family and devoted husband Ken at her home in Mapleton when she passed away. Joyce had always been a keen car enthusiast and was a stalwart of many car clubs. Her pride and joy was her red Riley which the Bakers' bought out from England when they migrated to Australia. Originally painted black, the 1932 Riley 14T101 14hp 2 door sedan was a prototype for the Riley Kestral series and was produced for the 1932 London Car Show. Joyce was only the second owner of this unique vehicle which is still garaged in their home at Mapleton. It doesn't clock up too many miles these days, though Ken turns the motor over regularly to ensure it can be moved to safety in case of bush fires. Joyce and Ken had been married for 69 years.



UPCOMING EVENTS OF INTEREST

THE 2012 NATIONAL RALLY COUNTDOWN

September 2011	October 2011	November 2011	December 2011	January 2012	February 2012	23 rd March 2012
		HAVE I BOOKED A BED	HAVE I ASKED SANTA FOR A NEW SET OF PISTONS	HAVE I PUT THE PISTON BACK IN THE BLOCK	HAVE I WRITTEN MY LIMERICK	NOW ALL I HAVE TO DO IS FIND THE KEYS

Send completed entry form to:-
GCAAC AUTORAMA,
PO BOX 228, MUDGEERABA
4213

By closing date
29TH OCTOBER 2011

With cheques made out to:-
"GCAAC AUTORAMA"



And we trust you'll
'ave a bloomin'
good weekend!

Further enquiries from
Autorama organisers,
Coral and Graham Cogzell
(07) 5534 5941 or
The Secretary, Margaret Hession
(07) 55241 338
<autorama@gcaac.com.au>



ACCOMMODATION

At the southern end of the Gold Coast there are many choices for accommodation, most have secure undercover parking and are self contained.

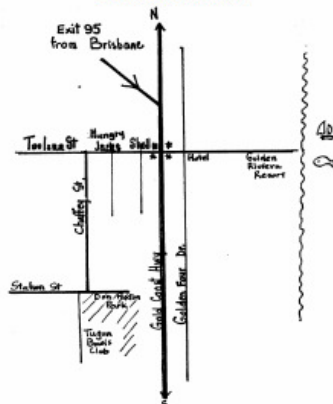
Our first recommendation to you is
***The Golden Riviera Beach Resort**
right on the beach at Tugun, behind the Tugun Tavern. If you share a 2 bedrm 2 bathrm unit with another couple it works out as cheap as a motel and the event's central point, the Tugun Bowls Club, is within walking distance.

Coffee shops etc. nearby too! ©
Contact Ph. 5525 9800

reservations@goldenriviera.com.au

- * Gold Coast Airport Motel 5536 6244
- * Bilinga Beachfront Motel 5534 1241
- * Oceanside Resort 5534 7000
- * Pelican Sands 5534 7744
- * Pacific Place Apartments,
Bilinga 5536 6288

DIRECTIONS



Welcome to
GCAAC
Autorama 2011

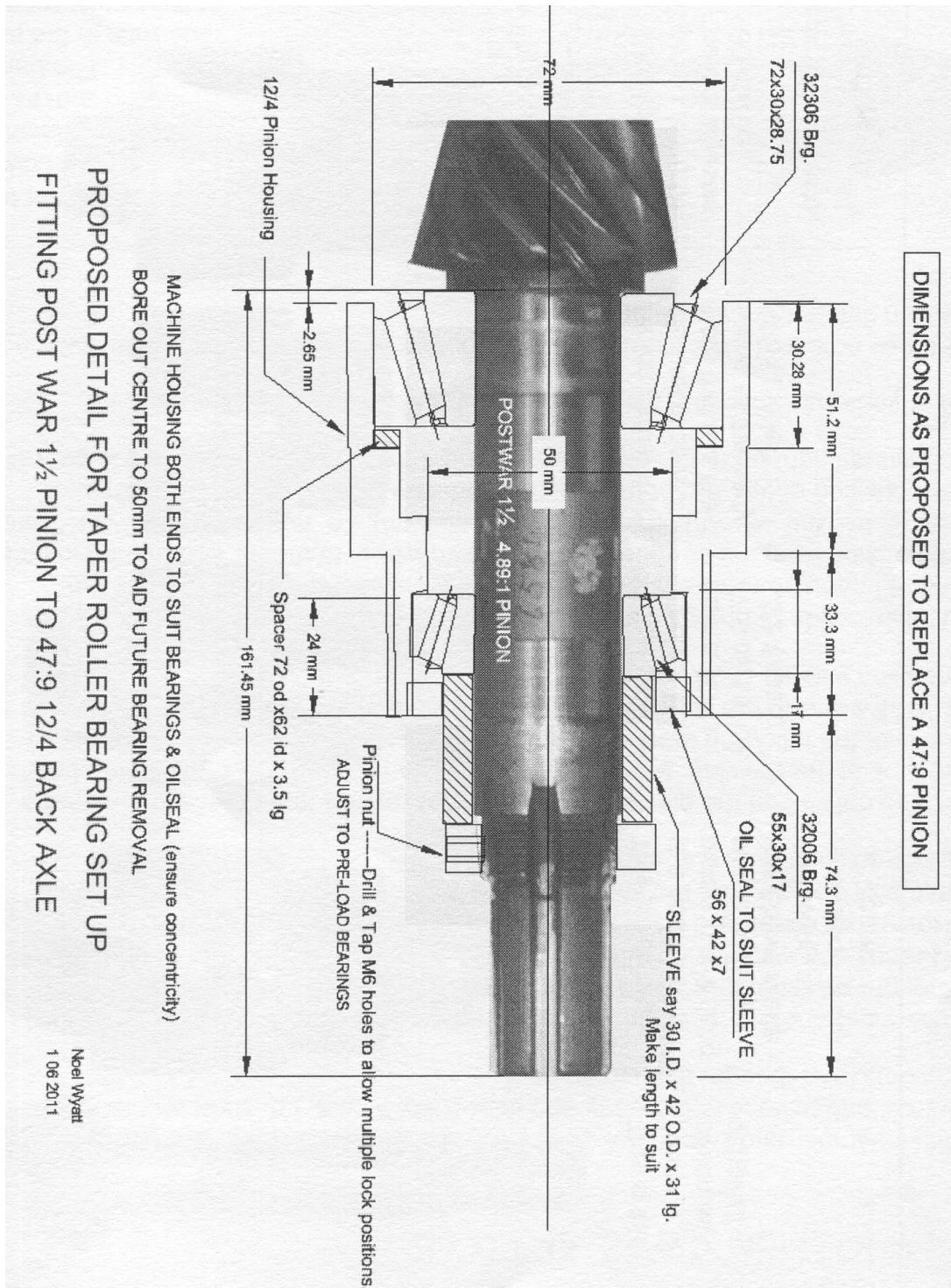
5th - 6th November 2011

For a
BLOOMIN'

GOOD WEEKEND

Proudly sponsored by





This insert was requested by some of the members at the last meeting. I hope it helps some of our members with diff problems.

Acknowledgement to Noel Wyatt and The Blue Diamond.

ARE YOU FREE ????????????????

Saturday 8th October.

{a message from Trevor Judd}

- I have been asked to find some extra historic vehicles for a car display at the Retirement Resort where Wendy and I reside.
- It is the annual Spring Fair and Open Day which would give you a chance to have a look at such a place just out of interest and without any obligation or pressure.
- If you would be able and willing to help out please ring me{3489 7837 or 042 777 0001} OR email me at trevnwen@yahoo.com.au
- Members of the South West Brisbane Motoring Club are being invited as well.
- The Open Day is from 10.00 am until 3.00 pm but you don't have to stay the whole time.
- I will rendezvous with any vehicles coming at 9.30 am in the car park at the Eagleby Plaza Shopping Centre. This is at the corner of River Hills Rd and Fryar Rd EAGLEBY. The UBD reference is Map 264 H 14.
- The Palm Lake Resort is further along at 272 Fryar Rd. UBD Map 264 H 9.
- Display homes will be open; other attractions will include craft displays, a fashion parade, a roving band and lucky draw prizes.
- A BBQ lunch will be supplied to all who come.

FROM THE CLUB CAPTAIN

September Run

Five RM's, two Riley nines and one modern gathered on the Wynnum foreshore for breakfast on Sunday 11th. As we all know the Saturday was miserable, blustery and cold. However Sunday arrived fine and warm with blue skies. A call from Ken & Wendy Lonie alerted us to engine problems and they were unable to continue. All agreed it was a successful and most enjoyable morning.

October Run

The plan is to meet at Donnybrook for morning tea on Sunday 16th at 9-30am. The turnoff to Donnybrook and Toorbul is immediately north of the Bruce Hwy/Bribie turnoff. This road splits, take the North fork to the picnic area on the foreshore at Donnybrook for morning tea. After morning tea, the run will continue to the Beerwah Hotel for lunch at approx 12-30pm. Lunch costs are approx \$15 to \$25.

As the Whites will be away, I suggest a call to the hotel (0754 940 555) that morning to book tables. Hotel address is 53 Beerwah Parade, Beerwah. Allan & Sheila Hill will look after this run (07 3289 1063)

Bill White Club Captain.

A NINE SECONDHAND PAIR OF MANARCO BEARINGS.

ANY OFFERS?



A NINE NAMED FLORENCE

Despite our love of our 1933 Riley Monaco Nine, Florence, our affection has been tested with a saga of failures. We have progressively fixed each of these problems over the past couple of years and believe we now have a reliable vehicle. However, it is worth recounting the most recent failure as I have now learned a lot more about white metal bearings.

Following an initial failure of number 3 bigend bearing when the poured white metal bearing failed like a shattered safety glass windscreen, (apparently due to crystallisation of the white metal with age), I decided to convert the engine to slipper bearings, so Trevor Brown of Advanced Metal Turning, 4 Harvest Road, Yandina, Qld (07 5446 8679) manufactured four new conrods, sized to suit available shells (ACL part number 4B2201 to suit a Leyland). This required a few thou being ground off the 1 and 11/16 inch crankshaft bigend journals. However, upon grinding, a crack opened up on number 4 journal.

Trevor Brown then manufactured a new crankshaft from EN36A steel bar. Unfortunately, the bigends now had to be made to suit the existing new conrods and slipper bearings. If starting from scratch, we would have made the bigends and conrods to suit a larger size bigend than original. However, we did have the opportunity to repair the damaged bore of the flywheel by making the taper for the flywheel oversize and then remachining the bore of the flywheel to suit.

We also made the main bearing journals oversize on the new crankshaft and made them to accommodate standard camshaft bearings from a red motor Holden (ACL part number 4C5116). The two main bearings on a Riley nine are not split and therefore camshaft bearings seemed a good solution, were readily available and easy to replace. Two full ring shells were installed to replace each of the rear and front white metal poured bearings. Oil flows freely into the annulus between each pair of shells and this provides the feed into the crankshaft which then lubricates the bigend bearings. The crankshaft feed from the front annulus feeds only the front 2 bigend bearings, while the rear oil feed only goes to the rear bigend bearings. Front and rear bigend bearing oil feeds are not interconnected.

When fully assembled, the new arrangement initially ran well. The next national Riley rally was in Queanbeyan so off we set in April 2010. All went well on the trip down with Florence cruising along at about 80 km per hour. Speed dropped off rapidly at the hint of any hills and often we were back to second gear. However, we reached Queanbeyan without mishap and then partook in the rally program. All was well until the last event, when a knocking sound appeared from the engine bay. RACQ and a tow truck were organised to haul her back to Maleny. Meanwhile Wendy and I travelled to see family in Victoria in a hire car, and then flew home.

Up on the hoist again and off with the sump. It was obvious from a cursory look that number three conrod had been hot and the bigend bearing failed. Once the engine was out and the crankshaft removed, the cause became apparent. A piece of whitmetal had flaked off the inboard rear main bearing shell (Holden camshaft bearings) and had lodged itself across the oilway, restricting flow to the rear main bearing, and thence to the rear bigend bearings. Number three bigend bearing had failed completely, but luckily had not damaged the crankshaft.

After installing new mains and bigend bearings, we were once again back on the road. The next 10 months were incident free with several reasonable runs including one to Toowoomba and one to Bundaberg. During this time, I made a set of extractors (or really a fabricated exhaust manifold) which improved performance markedly and overcame the problem of periodically rewelding cracks in the cast manifold. The only ongoing concern was regarding the reliability of the Rotax generator and its limited output, which made driving at night difficult.

So the national Riley rally came around again, and we were determined to take Florence to Beechworth. We set off with confidence, planning to meet up with the Queensland Riley contingent for lunch at Warwick. Well, that was not to be!

Just short of Warwick, with everything humming along and with normal oil pressure (45 psi) and normal water temp (75 degrees Celsius) that knocking sound appeared again. RACQ duly arrived from Clifton and we travelled back with the truck to Maleny, in pouring rain, where we transferred everything over to Penny, the trusty RMB Riley, and set off again for Beechworth, catching up with the rest of the convoy at Inverell.

Penny performed flawlessly to Beechworth and back to Maleny.

Upon arriving back in Maleny, Florence was up on the hoist again and the sump removed. The number 3 con rod was again showing signs of excessive heat and its bigend bearing was completely failed with the shell corkscrewed on the journal.

Engine out yet again (that's 8 times now I think) and crankshaft removed. Upon removal, severe "erosion" of the white metal on the inboard rear main bearing was evident, with some similar erosion on the inboard front main bearing. As discussed above, the main bearings we had used were camshaft bearings from a red motor Holden (ACL 4C5116) with a pair of these shells forming each of the front and rear mains. The attached photo shows the nature of the failure on the shells. No running or melting of white metal is evident with just sections of the white metal flaking off the backing steel.

This flaked off white metal has then entered the crankshaft and blocked the oil feed to the bigend journals, causing overheating and catastrophic failure of number 3 bigend bearing, with other bearings showing early signs of failure as well.

The flaking of white metal mainly occurred on the inboard rear bearing shell. The flaking occurred at the bottom of the shell where the load is greatest and where the oil feed hole is located. However, this cannot be purely a high load failure as the mating rear main shell, which would see the same load, showed no sign of failure.

After a lot of thought and discussions with others, and reference to bearing failure manuals, the cause of the failure became evident. The failure is consistent with the white metal layer becoming delaminated from the backing material due to excessive oil pressure for that white metal thickness. The excessive oil pressure is in turn caused by the load being too great for the white metal thickness. The high oil pressure results in oil finding its way into small cracks naturally present in the white metal layer, and then finding its way down to the interface boundary with the backing material. The oil then forces its way into the interface area and delaminates the white metal from the backing material. This causes pieces of white metal to flake out, without being overheated.

This is probably why aged white metal bearings can fall out into almost crystalline pieces (like broken safety glass) and appear as though the failure is due to the white metal crystallising with age. The oil has eventually found its way through natural cracks in the white metal layer and delaminated the white metal from the backing material.

The way to prevent this problem from happening is to

- reduce the load and therefore the oil pressure at the bearing.
- Increase the thickness of the white metal layer on the bearing so it is more difficult for the pieces to flake out.
- Change the bearing material to something other than white metal which is not subject to delamination.

In my case, the cause of our dilemma was clearly due to the use of camshaft bearings in a main bearing application, and the camshaft bearing white metal layer being too thin for the loads involved.

The solution has been to replace the camshaft type bearings with bearings machined from aluminium-bronze material. There is no backing material to delaminate from, and the material is far more competent than white metal.

Throughout this saga, the white metal bigend bearings have performed well, with no sign of wear other than that caused through oil starvation due to failure of the main bearings.

Florence is now back on the road, and this time hopefully, for a number of years before the engine has to be removed again.

A copy of a relevant page from the Nascar Bearing Failure and Analysis Guide, is attached.

Ken Lonie

September 2011.

Editors Note

We have had a great response from people who want their magazine sent electronically by email. I am sure there are more of you out there, that could assist us in lowering club costs by signing up to the electronic method. Simply ring me on 07 38867236 or better still send me an email at williamshort@aapt.net.au and I can tag your email for an address. If a friend or relative doesn't mind receiving it for you, maybe you could use their email address? Remember that you will end up paying more for club fees if we can't curb the costs.

The wash up of the John Payne spares tenders has been successful. So far, costs appear to have been covered and there will be a good repository of bits and pieces spares for club members to pick through at their discretion at very reasonable prices with any money raised going directly into the club coffers.

Cheers.

Bill.

THE 2011 RILEY MOTOR CLUB QLD ELECTED COMMITTEE

PRESIDENT:	Ken Lonie	07 5494 3323
VICE PRESIDENT:	Alan Hill	07 3289 1063
SECRETARY:	Matthew French	07 3353 0532
TREASURER:	Linden Thomson	07 3139 1524
CLUB CAPTAIN:	Bill White	07 3289 4282
SPARE PARTS OFFICER:	Jack Warr	07 3378 3541
ASSISTANT SPARE PARTS OFFICER:	Graham Mackay	0418 719 039
REGISTRAR:	Matthew Schooneveldt	07 3263 1986
EDITOR:	Bill Short	07 3886 7236

What Model is this? Know your Riley.

