



TORQUETUBE

Newsletter of Riley Motor Club Qld Inc.

Sept/Oct 2009


JANUARY 24, 1947

The **Autocar** 6^D

FOUNDED 1895 LARGEST CIRCULATION

"I fitted Lockheed because the high performance of my Healey needs perfect straightline braking & certain stopping"


B. Healey



Designers of modern motor cars choose

Lockheed
HYDRAULIC BRAKES

THE SAFEST BRAKES IN THE WORLD



Next Meeting: 8:00 pm Thursday, 8th October
Queensland Sporting Car Club
206 Montague Road
WEST END 4101

Editor: Linden Thomson (07) 3139 1524 lindenthomson@optusnet.com.au

Minutes of the Ordinary General Meeting of the Riley Motor Club, Qld, Inc. held on 13th August, 2009, at West End.

Meeting opened by Vice President Simon Schooneveldt at 8.05 pm with 25 members/guests present

Apologies: Burrows, Jacksons, Elliotts, Hills, S. Ellwood, D. Cameron.

That minutes from previous meeting be accepted, moved G. Brittain and seconded G. Ellwood.

Business arising from minutes: nil

Inwards Correspondence: Receipt for Affiliation Fees Q.H.M.C., Receipt from Ausnet Insurance Group, Invitation to “Top of the Town” Stanthorpe, Classic Car Nomination Form, Q.H.M.C. July meeting minutes. Tru Brit Mag. Club newsletters – Victoria and South Australia.

Outwards Correspondence: Membership Application form to Debbie Moffat, Tara via email.

That Inwards Correspondence be accepted and Outwards be endorsed, moved Matt Schooneveldt, seconded Bill Short.

Treasurers Report: July, 2009

Balance as per Bank Statement 30 th June, 2009		5266.95
Income	Membership fees	105.00
	Interest	.56
		105.56
Expenditure		
	N/letter exp. L.Thomson	160.60
	Room Rental Bris. Sport	
	Car Club	55.00
	Ausnet Group Club Insur	
	Package	635.25
	Q.H.M.C. Affiliation fee	70.00
		925.85
Balance as per Bank Statement 31 st July,2009		4451.66 cr

Moved Ross Phillips that report be adopted, seconded Ken Lonie

Club Captain Report:

Wendy gave details of upcoming outing to visit the Vintage aircraft “Fly In” and details of car parking etc. Meet at Esk for morning tea.

Simon S. spoke on the reasons for bringing up the issue last time re informal outings – potential for problems with insurance etc. and need to protect Club and members.

Spare Parts Report:

Jack has received a request from U.K. Club for a batch of P/finder king pins and bushes. Costs of not only production of items, but cost of freight etc. perhaps making manufacture not financially viable. Decision yet to be made.

Jack reminded those present that he has stocks of parts ready for immediate delivery...

Registrars Report:

Dianne P. advised of request from former member J. Deering of his loss of his Rileys. Company carrying out repairs gone into liquidation and his cars have been removed... whereabouts unknown. He is concerned that cars may be offered for sale without his approval. Dianne has passed on to him any information she has re his cars' particulars.

General Business:

Ross P. read e-mail re chap who is in dire need of help with his “9” restoration. Ken Lonie, Ian Hayward and Simon S. have offered to let him inspect and photograph their cars to assist in his endeavours.

Story by Ross P. re "Victor" problems – broken two pushrods.

Neal Brandt displayed examples of early magazines and photographs.

Vice Pres. Simon praised Editorial work but was in need of explanation of term

"crank-pin" in relation to the Mystery Item in the newsletter....American term for crankshaft journals!

Brief discussion on the benefits of the thin angle grinder blade now available.

Discussion on a 2 ½ motor presently in the process of changing hands within Club ranks....the motor has been bored to substantial oversize and the head has had extensive "porting" type work carried out. It has an engraved section showing - Gas flowed by Jimmy Wilkinson – (or very similar) believed to have had work done in Sydney some time ago!

Acting Sec. congratulated those present – attendance number was second only to the Annual General Meeting and that was with 5 usually regular attendees not present !!

Meeting closed 8.55pm

Next Meeting Thursday, 10th September, 2009

Minutes of the OGM of the Riley Motor Club, Qld., Inc. held at the Brisbane Sporting Club, West End Thursday, 10th September 2009

Meeting opened by President Alan Hill at 8.10pm with 19 Members and guests present.

Apologies: Dianne Phillips, Brian & Lyn Jackson, Dorothy Cameron, Graham Mackay, Ian Henderson, Shirley Ellwood, Pat & Betty Elliott, Bonnie Young, Matthew Schooneveldt, Dick & Earla Self.

Minutes from previous meeting:

Moved, Gary Britton seconded by Neal Brandt that minutes be accepted. Carried.

Business arising from minutes:

Nil.

Inwards correspondence:

1. RACQ Historic Motoring Rally 12-14 June 2010;
2. Qld Historic Motoring Council Management June Meeting Minutes;
3. Invitation to Sandgate PCYC Car & Motorcycle Show 13th September;
4. Invitation to Clontarf Beach Scout Group "Wheels of the Century" Auto Show, 1st November;
5. Invitation to Black Snake Creek Festival, 9 and 10 October;
6. Riley Gazette x 2, Riley Newsletter WA, Riley Rattles x 2 and Riley NZ.

Outwards correspondence:

1. Membership Application Form to Mr Rod James, Boambee;
2. Note to Mr Tom Bite to fill in vehicle details and forward to Treasurer and Registrar..

Moved by Linden Thomson seconded by Simon Schooneveldt that the inwards be received and the outwards be endorsed. Carried.

Treasurer's Report August, 2009

Balance as per Bank Statement, 31 st July , 2009		\$4,451.66CR
Income	Membership fees and Donations	\$ 177.00
	Interest on account	<u>\$ 0.56</u>
		<u>\$ 177.56</u>
		\$4,629.22
Expenditure		
	L. Thomson, Newsletter Expenses for August 09	<u>\$ 155.96</u>
		<u>\$ 155.96</u>
		\$4,473.26CR
Balance as per Bank Statement, 31 st August 2009		\$4,473.26CR

Moved by Ross Phillips that his report be accepted, seconded Neil Walter. Carried

Club Captain's Report:

All British Day at St Joseph's Sporting Grounds, Sunday 20th September. Entry for Display Cars \$15.00, \$5.00 for modern car parking. All profits to medical research and RACQ Careflight Helicopter.

Spare Parts Report:

Jack advised that supplies of Lucas distributor caps part number 418888 for 2½ will eventually dry up. They were \$65.00 each but now cost \$70.00 each. He has ordered some more but recommends that members should start thinking about fitting electronic distributors and ignition coils.

Jack at present working on radial rims purchased from RACQ via Robin Hull. He is investigating the fitting of Riley Pathfinder Centres to these rims so that modern radial tyres can be fitted.

Registrar's report:

Nil

General business:

Discussion raised by Linden regarding the fitting to 2½ of L300 Mitsubishi electronic distributors and the correct ignition coil. Apparently there have been a number of versions fitted to various Mitsubishi models over the years and one had to be careful of selecting the correct coil as the wreckers don't sell the ignition coil with the distributor. Jack does have Denso distributors and coils suitable for most Rileys.

Simon Schooneveldt described how the brake linings on his new acquisition Riley Elf were smoking after going down the mountain to Samford. Ray Burrows said that he has had several grades of linings on his Pathfinder, either they were too hard or too soft. He is really ticked off as the rear linings containing the dreaded asbestos fitted twenty years ago were still in good shape. Ross Phillips had previously mentioned using "Green Gripper" linings on his Elf for racing. Ray has had a set of shoes fitted with the Green Gripper linings and is yet to fit them.

Neal Brandt brought along some drawings of a 1925 Riley for members to look at.

Secretary's Email: Redpath@aanet.com.au

Meeting closed: 9.00pm.

Next Meetings:

Thursday, 8th October, 2009.

Thursday, 12th November, 2009.

BRISBANE SPORTING CAR CLUB

Unit 1, 206 Montague Road

West End Q 4101 (UBD map 21 (P8) approximately opposite Donkin Street.

Club Captain's Report:

Wendy Judd



THE AUGUST OUTING

Thanks to all who came to the **Festival of Flight** at Watts Bridge airfield. We had the RMB's of the Romers, the Lonies, the Jacksons and Stuart Paton, plus the Burrow's Pathfinder and Simon Schooneveldt in his Elf. The Judds came in their Pathfinder but it is of the Nissan variety. Graham Ellwood and Gary Britton were also there.

There were a couple of other Rileys amongst the approximately 100 cars of interest. They were an RMB and an RMC (we think ex-Mike Bramwell).

There were also lots of aeroplanes of interest as well.

THE SEPTEMBER OUTING

This was the **All British Car Day** organised by RACQ Batteries and the All British Classics Car Club. We had a good turnout of 11 Rileys with a variety of models— two RMAs, two RMBs, two RMCs, one Pathfinder, one Lynx, one Nine Special, one Falcon and one Riley 1100 Kestrel.

Secretary Ray organised a small trophy for our own "in club" people's choice since Rileys never seem to win the overall vote at these days. Passers by were asked to pick their most appealing Riley. The winner was Neal Brandt's Falcon.

See photos elsewhere in this magazine.

THE OCTOBER OUTING—Sunday 25th October

And now for something completely different.

We will be joining with some other Clubs (including the South West Brisbane Motoring Club) to visit **The Australian Muscle Car Museum**, owner Jeff Bloom.

For those who don't know, Falcon GTHOs and Holden Monaros are examples. Jeff has over 100 vehicles and he doesn't always open unless he gets a reasonable number coming.

DETAILS ARE AS FOLLOWS:

Meeting time 10.00 am.

Meeting place: the EASTERN car park at NARANGBA railway station [UBD map 78 D13].

Jeff will then guide us to the location.

BYO morning tea, lunch, table, chairs.

COST of admission is \$15 per person with \$10 for pensioners/students/children under 14. The tour takes 4 hours. Cold drinks are on sale.

A brochure advertising the Museum will be on display at the October meeting. The collection recently featured on Briz31 TV.

Give me numbers at the October 8th meeting but certainly no later than Friday 23rd October.

THE NOVEMBER OUTING—Sunday 22nd November.

This is being organised by Bill White.

We will be visiting a friend of Bill's (Barry Deeth) who has a collection of Ariel motorbikes and a Brush car.

We will meet at the Toombul Shopping Centre [UBD 140 N4] at 9.30 am.

We will convoy to Barry's place at 26 Coulter Crescent NORTHGATE [UBD 121 B17].

After a two hour visit we will convoy to Nudgee Beach for a BBQ lunch.

Bill will give us more detail at the October 8th and November 12th meetings.

QHMC CLUB RUN OPEN INVITATIONS TO INDIVIDUAL MEMBERS AND OTHER CLUB GROUPS

BRING YOUR CLUB VEHICLE, SIVS APPROVED RUNS, ALL WELCOME

24th Oct 09 Austin Club run in Ipswich region. Details available early Sep.
0411 694 072

NOTE: TEMPORARILY my phone number is 3348 3442, mobile numbers 0417 770 593 or 0427 770 001. Email is unchanged.

We are in temporary accommodation awaiting the completion of our new "home".

On the Cover:

Maybe stopped by Lockheed, but powered by Riley!—read some of the story in this issue. Cover of *The Autocar*, January 24, 1947.

Editor's Notes:

First, my apologies for the non-appearance of a September TorqueTube (explanation below.)



Some time ago Ross Phillips asked me if I had any performance figures for the Riley-engined Healeys. He was interested in comparing the dyno figures for Victor while developing and tuning the supercharger installation. I must admit that when Healey is mentioned, I usually think Silverstone (hardly ever Austin- , must be one of my blind spots) but while ferreting around amongst the silverfish fodder, I realised there is a very interesting story in the Riley-Healey relationship. The feature story in this issue is the result. Hope you enjoy it.

Actually, this story is the reason that the September TorqueTube didn't appear and has been amalgamated into a double September-October issue. When I began writing it, I had grabbed a tiger by the tail and was unable to let go! So I guess, in one sense, it's Ross's fault 😊. Seriously, I have found trying to keep to a monthly schedule increasingly onerous, so may well adopt President Alan's suggestion of a simple newsletter with minutes, runs and for sale/wanted notices on alternate months. Feedback and/or contributions, please. Thanks to those who contributed material for this issue.

Incidentally, I hear that at the last Speed on Tweed, a Healey Silverstone (replica?) was entered but did not show, but a very nice Healey Elliot did run. Both of these (not a replica) are high on my 'Most Desirable' list.

Another mystery object—



No shocks this time! (It's a 1cm, grid.)

From the Registrar:

There has been a number of sales/purchases of cars with the Club over recent months. I would like to update the Club vehicle register with these changes. It would be appreciated if those vendors/buyers could let me know the relevant details. My contact details are in the n/letter.



I have heard of a flurry of activity regarding the production of "specials" within the Club ranks. Could I suggest that the potential constructors contact the Queensland Transport Department for information regarding alterations? There is a brochure "All about modifications to motor vehicles" available. A telephone contact for this information is 3235 4851 or www.transport.qld.gov.au

Also available is – Motor Vehicle Modification Application – Form F1854 which includes modification details on virtually all aspects of the vehicle.

To obtain official approval before starting the project would give peace of mind that the usually (very) expensive work will legally be able to be used on public roads and also be able to be insured without fear of claim rejection in the future.

SMALL TORQUE

.....TELLING TALES OUT OF SCHOOL & GOSSIP

Time to dust off the Olivetti for this month. I wonder if people realize that typewriter rubbers are quite difficult to find these days...try not to make any mistakes.

I mentioned last time that "Playgroup" was in disarray – NOT so!! The old duffers have been out and about. To the depths of Ashgrove and to the south west...even a trip to Closeburn (have to get out the Collins Atlas for that one).

Another member I have been told is currently O/S. Asst. S/P/O travelling to parts unknown, well, unknown to him. Not really sure he knew where he was off to.

Yet another leaving the country. He has been enjoying drinking Guinness so much that he felt that he should go and see from whence it cometh.

More news on the car front. The Phillips' Kestrel, languishing in cobwebs for years, has come to life. Some pics may be forthcoming soon.

A member recently invited some members of the "Playgroup" to his shed and experienced a modern version of an ancient Viking raid. All that rape and pillage stuff...well no rape...but plenty of



pillage. Poor chap just stood in horror as the invading hoards rummaged or should that be pillaged through his ever so neat filing system of parts and treasures. No secrets here now. Security system 'photos may reveal villains.

Some workplace ditties doing the rounds -

Plumber advertising....Don't sleep with a Drip, call the plumber

Sewerage firm advertising....We are Number 1 in the business of Number 2



Above: Gathering cobwebs
Right: What's this connect to?



Above: Raiding party at work
Right: BJ finding 1½ parts in box marked "2½"



Wanted

Water Temperature Gauge complete, 1950 or later rectangular type, with capillary and bulb.

Bill White 07 3289 4282

All British Car Day, 2009:



Above: Nine Special and Lynx
Right: Neal Brandt's Falcon



Above: Neal receiving the "People's Choice"
award from President Alan
Left: What model is this?



Above: Lovely line-up
Right: Official "People's Choice"-winning
Armstrong Siddeley boat-tail



(Photos—Ray Burrows and Editor)

Riley Nine Magneto Dramas:

Owen Williamson

During the early part of 2009 my treasured Riley Nine Roadster decided to have a hissy fit and would not start on a regular basis. After much conjecture and good advice from friends and colleagues it was decided that the weak spark of the magneto was the primary culprit. The quick removal belied the amount of fiddling that was needed to see if a problem was immediately obvious or not. However, it was soon decided that a major overhaul was required.



Magneto ready for sending to the specialist.

Due to the magneto's considerable weight of 4.8 kg I decided to send the beast by a "Pack and Send" courier to a retired chap down south for a complete overhaul. The pack and send courier charged me an arm and leg but they created a foam cocoon in a large box which protected all the odd bits from being broken in transit. Some judicious insurance was purchased in case this irreplaceable magneto went missing and the whole thing was on its way. Several months and many phone calls later it duly arrived back in its purpose built foam container safe and sound.

A few hours of trying to set it up as per the manual resulted in a frustrating period of non operational activity. What ever we did didn't seem to work as we couldn't readily access the timing marks on the fly wheel without ripping up the carpet and flooring in the car. This was something I didn't want to do unless all else failed. Plan 'B' came into being when some additional information came to light from the maggy restorer and a good friend who always tells you the bleeding obvious thing. He suggested that the maggy could be 180 degrees out of phase. This reversed the sequence of the firing order. Turning the maggy around was trialled and some success was achieved.

After much pondering of the navel and thinking through the problem it was decided to take the maggy off, reset everything and start again.

Finally the maggy burst into life with the help of some "Start Ya Bastard" and a new battery.

The obligatory celebration of a vintage can of coke from the north side of the fridge and a quick lap around the house paddock in the Riley detected a worrying clacking sound emanating from the maggy. There was plenty of spark but way too much noise. After a quick conference it was decided for the tenth time that day to take the maggy off and see what was causing the noise. On dismantling the rotor section of the maggy an errant brass screw was found that had wandered around the rotor gear chamber causing havoc. Not what one wanted to see? (Pictures of the damaged gears are shown below) One of the rotor's holding-down screws had come loose and slowly chewed up the gears.



It became apparent that the errant screw that caused all the grief had been inserted but not locked in place with either a locking washer or Loctite.

Thankfully not one tooth was broken off but many had been mangled and needed reprofiling. After several hours of tedious and painstaking filing with a mini rat tail file the two affected cogs looked presentable. Another tedious reassembly and fitting of the maggy to the car resulted in a successful test run. No more noise, a strong spark and hopefully a great car for the next generation to enjoy.



If anyone is having any magneto problem and needing some help, I believe that my recent experience could enable me to assist you in this field.

From The Light Car, January 1947:

This is part of a brief report describing the new Riley 2½-litre and The Motor's Continental testing of it and the new Healey Saloon. They seem impressed by the Riley. It is here by way of an introduction to the Healey article following.

"JUDEX" remarks on the new 2½-litre Riley in this month's—

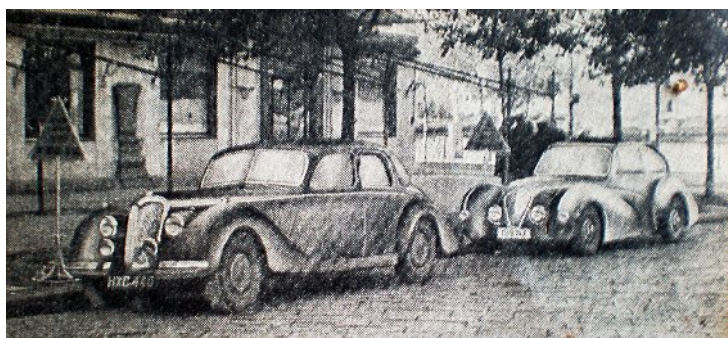
Programme Parade

QUITE the most outstanding post-war British car was the 1½-litre Riley, and it is not surprising that Riley engineers were loath to depart from a most successful design when evolving a new and bigger-engined car. Not that the new 2½-litre is merely the 1½-litre with a larger engine—this is far from being the case. The latest Riley can best be described as an entirely new vehicle, which embodies many of the lessons learnt in producing one of 1,500 c.c.

Although the weight of the big four-cylinder car has been increased by only 4 cwt., as compared with the 1½-litre, power output has been stepped up by as much as 63.6 per cent. The resultant power-weight ratio (90 b.h.p. for 29 cwt.) has produced a most striking road performance for a vehicle which is undeniably in the comfortable closed touring category. and is not claimed to be a sports model in the true sense of the term.

The Editor of our associated journal, "The Motor," played a large part in putting the new car through its paces on the Continent quite recently . Its speed and acceleration even shook the Italians, who were assisting in the official timing. The car covered a measured distance at 96.2 m.p.h., with an average each way of a shade under 95 m.p.h. A standing ¼-mile occupied only 19.8 secs. At the same time, the Riley-engined Healey was tested. This car reached 106 m.p.h. (mean average 104 m.p.h.), and did the standing quarter in 17.8 secs. Stands Riley where it did? .
... I'll say it does.

THOROUGHBREDS: A new 2½-litre Riley and an aerodynamic Healey saloon, photographed at Como, Italy, during severe road tests.



Powered by Riley—

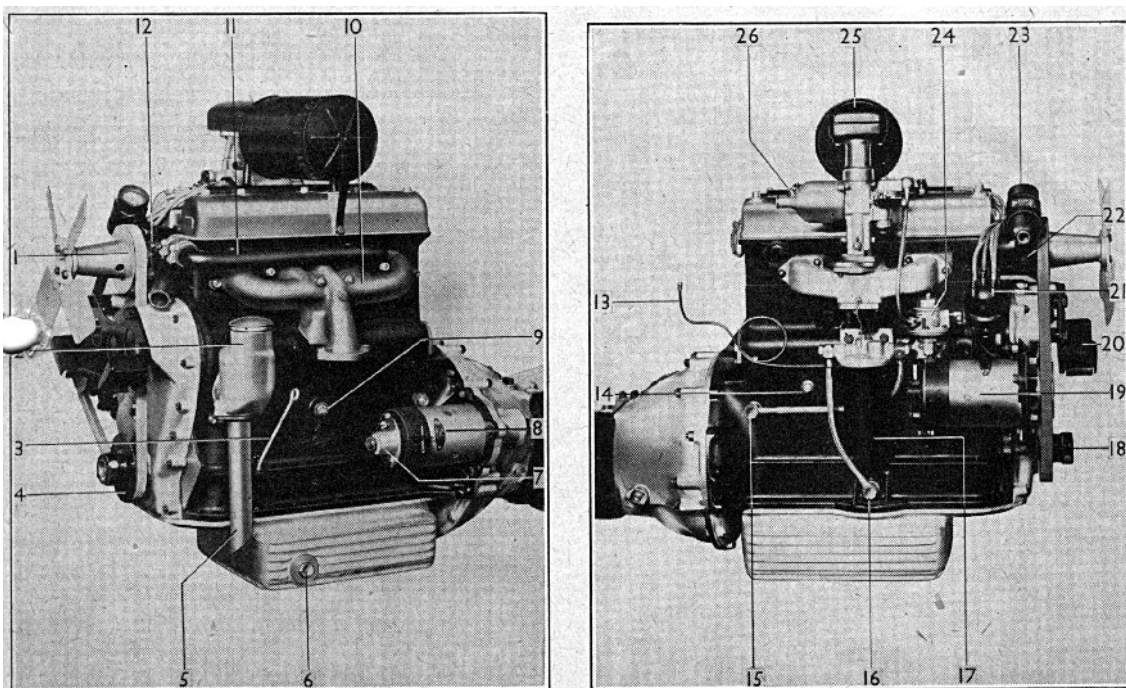
LT

The Fastest Production Car in the World

In January 1946, the British motoring press became quite excited by the announcement and launch of a new car of 'British Design to Compete on Every Count with the Best of Continental Sports Cars' (*Autocar*, January 4, 1946)—the 2.4-litre Healey. It was to be available with two-door, four-seat saloon and roadster bodies, powered by a Riley 2,443 c.c. engine, a development of the pre-war Big Four 16 h.p. Of the two major motoring weeklies, *The Motor* was not apparently invited to the launch, just "old friends from *The Autocar* and Kay Petre, then motoring correspondent of *The Daily Sketch*." *The Autocar* published a four-page description of the new car on January 4, 1946. *The Motor* followed with four pages ten days later, so they weren't out of the picture for long and had in fact driven the prototype open car before it had a complete body.

The Healey Saloon announced at the launch hadn't yet been completed, being represented by retouched photographs of the model built for wind-tunnel testing; but there was an actual Riley-powered car (the prototype roadster) on display. Since Riley had not yet announced their 2½-litre saloon—they only built the test car during January 1946—this announcement rather gazumped them. There was however a great degree of cooperation between Riley and Healey, perhaps too much in the eyes of Nuffield management who seemed to fear that this may have been delaying development of Riley's own new cars.

The 1939 Riley engine on which the post-war engine was based had a cross-flow head with a single downdraught S.U. D5 carburettor mounted on a manifold heated by exhaust gases. It produced 83 b.h.p. @ 4,300 r.p.m. on a 6.4:1 compression ratio.



The 1939-40 Riley 16 hp engine

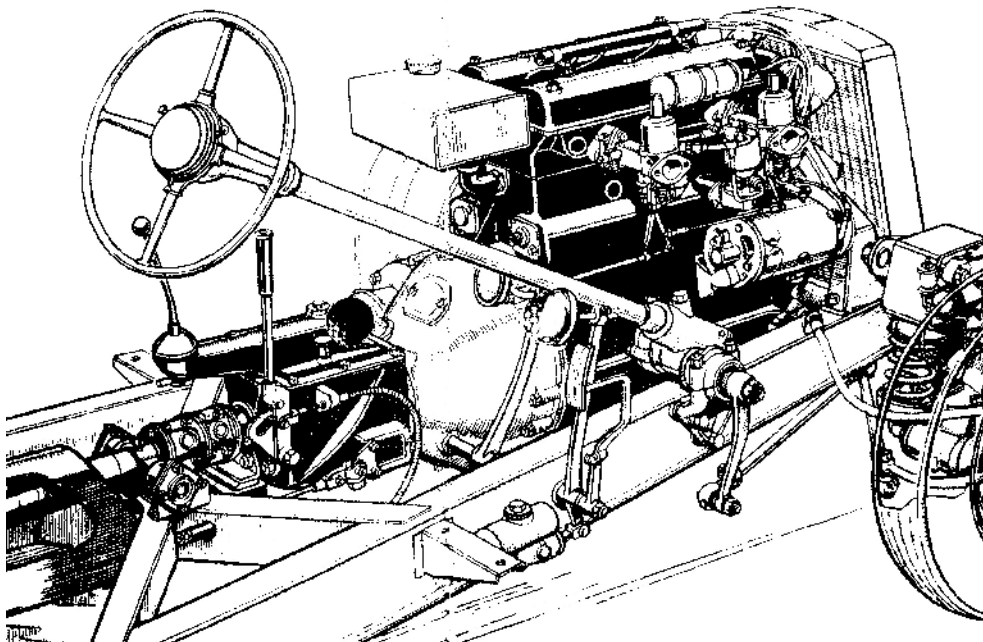
It seems to have been this engine that was the basis of the engine fitted to the Healey. Donald Healey wanted his car to have 100 b.h.p. per ton—which he didn't quite achieve—so the output of the motor had to be increased. Of course, Riley were also upgrading the engine design at the same time, and it is very difficult to work out who did what when, and what the interaction was.

Among the contemporary sources, *The Autocar* is not much help, only stating in the January 4 article—

As the engine is a descendant of the excellent 16 h.p. Riley, already well known and well proven—concerning which a separate review in connection with a forthcoming Riley model will appear in due course—it is not proposed to describe it in detail on this occasion. Suffice it to say that the engine used in the Healey car has a special arrangement of twin carburettors, and special exhaust manifolding.

The specifications *The Autocar* published included compression ratio 6.5:1, maximum b.h.p. 100 @ 4,600 r.p.m., twin large-size S.U. carburettors with air silencers.

This *Autocar* illustration shows a mechanical fuel pump, carburettors bolted direct to head, no balance pipe, and a remote water header tank at the rear of the block connecting via the core hole. Early RMB motors also had an AC fuel pump (until April, 1947 – chassis 57S2169). Production Healeys had dual S.U. electric fuel pumps. The remote header tank doesn't appear to have survived for long, perhaps because, as Sales Director James Watt recalled, the car boiled on the way from the Westland body builders to the Press launch!



The article in *The Motor* of 16 January 1946 is somewhat more technical, with Laurence Pomeroy Jr. estimating on theoretical grounds the potential top speed of the Healey saloon to be above 100 m.p.h., which was, of course, Donald

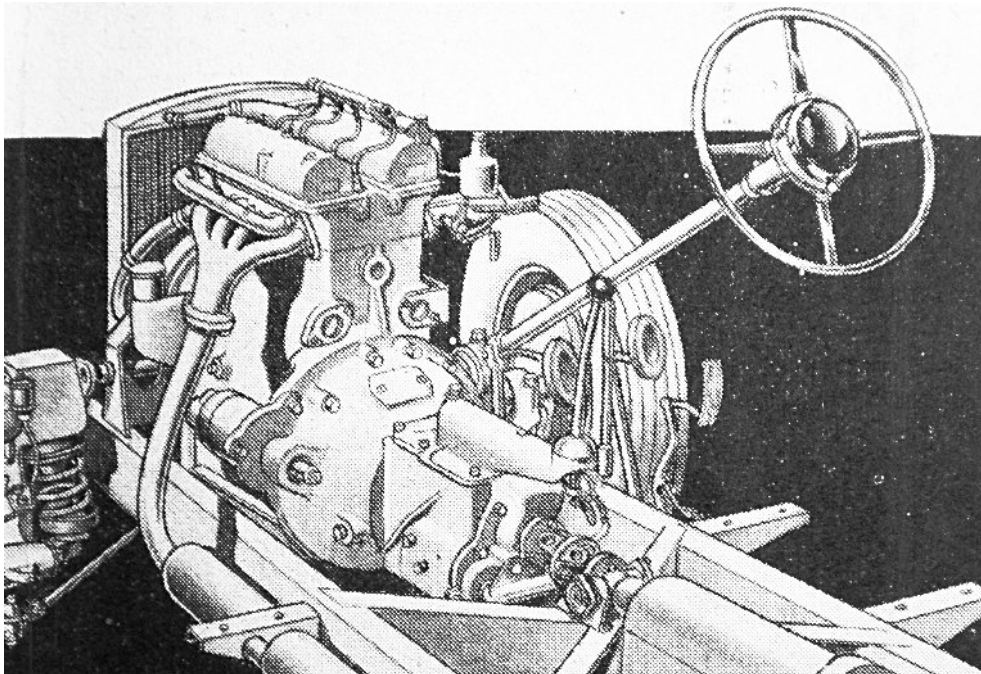
Healey's intent. It does not, however, help to resolve questions on development of the engine, saying merely that

By intensive detail development work the engine output has been increased from the original 83 b.h.p. to over 100 b.h.p., ...

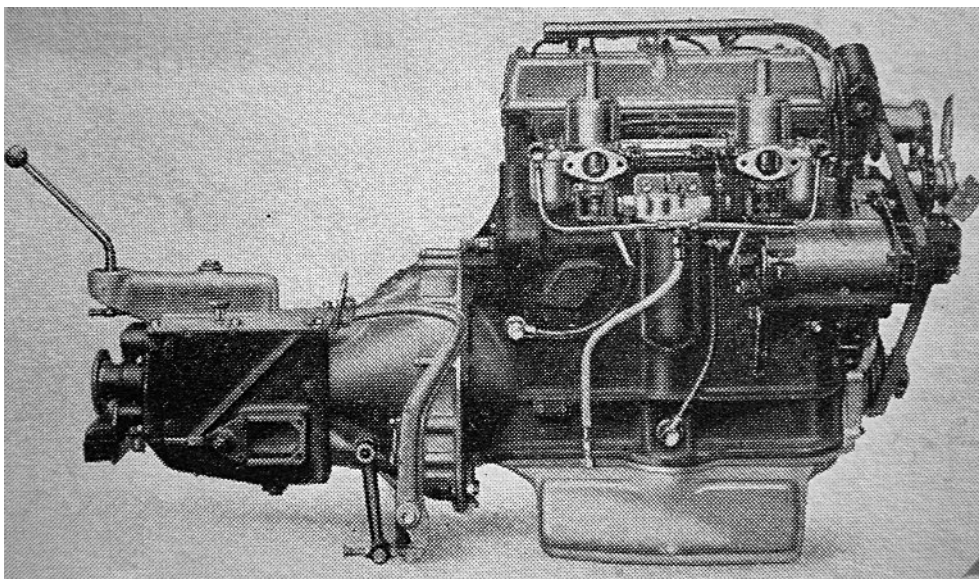
In the specifications list, power output is given as 102 bhp @ 4,500 r.p.m.

The text describes 2 x S.U. HV4 carburettors "bolted directly to the manifold" heated by exhaust gases, but this is wrong. Watt says the first engine supplied by Riley was a reconditioned pre-war one, so Pomeroy may have been misled by an earlier installation in the test prototype, *The Motor* not being present at the Press launch.

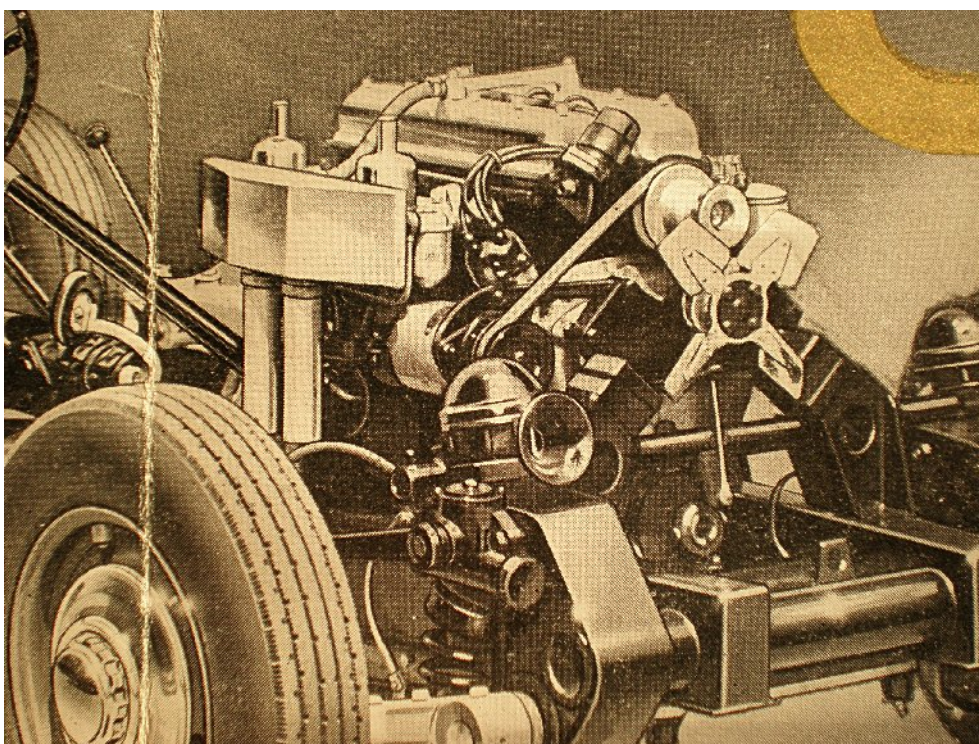
The Motor drawing doesn't show a water header tank, either remote or attached to the radiator core, but shows the four-branch free-flow exhaust manifold.



It is interesting that neither of these reports includes photographs, both relying on drawings for illustration. Here is a photograph of the engine used in production cars, from a Healey brochure—



It shows a very simple, unheated "special inlet manifold." And here, from the same brochure, is the motor as mounted on the Healey chassis—



The "cold air box" inlet silencer is obvious. It was devised to allow a low bonnet line. Some other publicity photos show an RM-type air inlet manifold and filter/silencer, possibly on chassis intended for sale bare for bespoke body builders. Recommended carburettor needles were AM for the air box and EE for the filter.

Motor Sport didn't manage a visit to the Healey factory to review the cars until December 1946 even though "it was a high priority on the Editorial agenda." Their three-and-a-half page 'Looking in on the Healey' article was published in January 1947. This was after production had started—the first production car

being completed in October 1946— and cars were available for purchase. It was also after *The Motor* had published their Continental Road Tests of the Healey Saloon (Elliot) and the new Riley 2½-litre—see the article from *The Motor* of 20 November 1946 for the story behind these tests. *Motor Sport* makes mention of the Healey's exploits—

...Mr. James Watt, the Sales Director, was able to greet us with the news that the saloon Healey had been timed by the Automobile Club of Milano to do 104.65 m.p.h. over a flying ¼-mile on the Milan-Como Autostrada, and to have clocked 17.8 sec. for the standing start ¼-mile. It had also covered a kilometre at 106.56 m.p.h. These figures, in respect of which the Italian Club has issued a Certificate covering the deeds of car No. NX 199, engine number M 502, chassis number A 1502, were a fitting prelude to our inspection, because these performances by a closed car of 2.4 litres capacity are, frankly, momentous. The aerodynamic bodywork clearly pays big dividends, especially as the fuel consumption came out at well over 30 m.p.g. at 70 m.p.h. cruising. Donald Healey has convincingly realised one of his ambitions, to market a production saloon car able to exceed 100 m.p.h. That he has done this with a moderately-tuned, four-cylinder engine of but 2.4 litres capacity is all the more to his credit.

It is also open to speculation that Victor Riley also realised his dream, by proxy, of his Big Four 16hp engine powering a 100 m.p.h. car.

Motor Sport's comment on the engine in the Healey was—

All that had to be done to the Riley engine to make it suitable for Healey's purpose was to replace the down-draught carburetter with two S.U.s and fit an easy-flow exhaust system. The latter gives some five additional b.h.p. We understand that each engine is supplied by Rileys with a power curve, and that they use the same modifications for the engine in the new 90-h.p. 2½-litre Riley car. The Healey's compression ratio is 6.5 to 1 but this may be increased to 6.8 to 1 when pump fuel improves in quality. The engine in the prototype has apparently done 100,000 miles without mishap.

Giving his impressions of the Healey, Cecil Clutton, who had accompanied the Editor of *Motor Sport*, penned this remarkable piece of prose—

The particularly effective output of the engine is contributed to largely by the excellent ingurgitation through twin S.U. carburetters, and unimpeded expectoration through the beautiful four-pipe, Bugatti-like exhaust manifold.

So much for the contemporary sources I could find—not a very clear picture of the precise specification of the engine used by Healey or of how it differed from the engine Riley was to announce powering the new 2½-litre in mid-1946. This developed 90 b.h.p. @ 4,300 r.p.m., compression ratio was 6.8:1 (6.5:1 on early engines), and carburation was by two H4 S.U.s on a water-heated manifold. The exhaust manifold was a free-flow type, similar to that on the

Healey. Riley also supplied Healey with the gear box, torque tube and rear axle of 3.5:1 ratio to suit the Healey's 15 inch wheels. This gave 22 m.p.h. per 1,000 r.p.m.

Perhaps the retrospective books and magazine articles dealing with the Healey phenomenon might provide clarification on these matters of differing specification?

Donald Healey, in the autobiographical part of *My World of Cars*, which deliberately includes almost no technical information, says that—

Just before the war, Rileyhad just produced a new 2.4-litre, four-cylinder engine of very advanced design developing just over 100 b.h.p. This was the minimum output we regarded as necessary. Victor Riley was still in charge at Riley and, after many talks together, he agreed to supply me with these engines as soon as stocks became available. This could have taken a very long time, as rigid material controls were in force, and the change-over from wartime production was slow.

Good friend that he was, Victor found me an engine, gearbox and rear axle from some secret store, and I was in business.

and

The output of the standard Riley engine, with its twin camshafts and pushrods and twin horizontal SU carburettors, was raised to 104 b.h.p. at 4,500 r.p.m. largely by the use of an improved exhaust system, with a compression ratio of 6.8 to 1.

Harold Hastings, author of *The Motor's* report of the Jabbeke exploits discussed later, writing in *Collector's Car*, September, 1981—

My first post-war meeting with Donald was in April 1946 when I called at the works in Warwick to renew our acquaintance after the war-time break and find out how things were going with his new venture — the 2.4 litre Healey which had been announced at the beginning of the year.

I found him, like so many others at the time, full of enthusiasm and frustration — the latter at the problems of getting components. Engines were the worst difficulty, but he told me that he had been promised the first batch of the new Riley Sixteen engine, which was due to be used later in the year in the larger version of the new 1½-litre Riley. When they arrived, things would really get moving. Meanwhile, a short demonstration in the prototype left me most impressed.

▪

As mentioned earlier, the engine used was the new 2½-litre Riley four-cylinder engine which was, in fact, a post-war edition of the pre-war Sixteen.

▪

In standard form, as fitted in the Riley saloon, the output was 90bhp at

4,000 rpm, but the Healey version was modified to give 102bhp at 4,500rpm.

In *Healey: The Specials*, Geoffrey Healey says little about the Riley engine used, with just a single paragraph—

The engines were built either by Eddie Maher's team at Riley (Morris Motors) or by Roger Menadue (*at Healey—LT.*) The Riley engine was generally a very reliable unit, apart from its tendency to oil surge in the sump under hard cornering. This would lead to a lack of oil supply to the big end bearings and their subsequent failure. Roger and Eddie devised a special oil pan baffling which overcame this problem.

This really refers to the production Healeys, throwing little light on the development phase.

James Taylor has a single-page appendix in his *Riley RM-Series* (Appendix H: The Riley-based Healeys) in which he says of the prototype Healey—

The 2½-litre power unit was modified with the help of Eddie Maher, who was the Riley man from Morris Engines Branch; in 104bhp Healey guise, it had a strengthened bottom end and a new cylinder head with bigger valves to improve breathing.

The claim of larger valves is also made by Williams in *The Legendary RMs*, though his text is a little confused about Riley power outputs. The first production Healey, the first Elliot Saloon, still exists and the engine was noted to have "small type" inlet valves in the 1960s (see the article by Clive Randall, *The Exploits of the First Healey, Chassis 1502* on www.marqueart.com.)

More confusion is added by Graham Robson in *Riley Sports Cars*—

As with most quoted figures for this point in motoring history, it is best to treat the published power outputs with caution. Riley themselves quoted 90 bhp at 4,300 rpm, while Healey, helped along only by changes to the carburettor air cleaner, and to the exhaust system, claimed no less than 100 bhp at 4,600 rpm; both engines then had a compression ratio of 6.5:1. However, by 1948, when the first post-war Earls Court Motor Show was held, the compression ratio had risen to 6.9:1, Riley were claiming 100 bhp at 4,500 rpm, and Healey were quoting 104 bhp at the same revs!

Robson fails to mention that Riley didn't claim 100 bhp until introduction of larger inlet valves at engine no B1201 in mid-1948 (chassis 58S2959), so why didn't Healey then claim something like 110 bhp? When were larger valves introduced to Healeys? Despite the claims made in the more recent books, lack of any mention of valve sizes and camshafts in the contemporary sources suggests that the engines supplied to Healey did not differ from the Riley 2½-litre engines in this respect.

For his *Riley 16/4* book, Vernon Barker has investigated extensively the development of the pre-war 16hp engine from its original 1936/7 Hi-charge form to the form it took after the war in the RM. He does not provide much to assist with regard to the Healey motors—

Post-War the 16hp [2½-litre] engine produced 95 bhp initially. There were special engines, particularly those built for Healey and possibly developed during the War using twin HV4s and AM needles with 90 jets.

But can one make sense of these varying and inconsistent descriptions of the engines used in the Healey cars? Pity the poor historian. It would be nice to resolve the differences and it may well be that someone, perhaps in the Association of Healey Owners, has succeeded in that; but it is beyond me at the moment. More research is required. There is still a story to unearth but at this remove in time it would be a difficult task.

Whatever the precise origins and technical specifications of the motor, the achievements of the Riley-engined Healeys are indisputable. After the publication of Christopher Jennings' 'High Speed Holiday' in *The Motor* of 20 November 1946, that journal published Continental Road Tests of the Healey 2.4 Saloon and of the Riley 2½-litre.

From the Healey test data published by *The Motor* in their Continental Road Test No. I.C./46 on December 4, 1946—

Fuel Consumption	30-35 m.p.g.
Speed	104 m.p.h. (mean both ways) 73 m.p.h. 3rd. 48 m.p.h. 2nd.
Acceleration	10-30 on top, 8.2 secs. 0-60 through gears, 8.4 secs. 0-100 through gears, 47 secs. Standing quarter-mile 17.8 secs.

It is interesting that, at the laden weight of the vehicle of 25½ cwt. (2856 lbs./1295 kg.), the standing quarter time gives a calculated engine power of 100 h.p. The corresponding calculation for the RMB tested at the same time (31½ cwt./19.8 secs.) gives engine power as 90 h.p.

According to Harold Hastings, of *The Motor*—

But there were those who cast doubts on this 100mph-plus performance.. In particular our rivals at Dorset House (where *The Autocar* was published) told Donald Healey that, in their opinion, the figures were not acceptable.

This, of course, made Healey hopping mad. He cast about for a public way of proving beyond doubt that the Healey would comfortably top the

hundred mark without recourse to a special engine and special fuel. Fortunately, he did not have to wait too long for the perfect opportunity.

This was provided by another record attempt by Lt.-Col. A.T. Goldie Gardner—this time in Class I (500cc) with his famous M.G.-built record car, which already held records in the 750cc, 1,100cc, and 1,500cc classes *with the same engine!* On this occasion, the original 1,100cc six-cylinder engine was running with a special crankshaft to bring the capacity down to 750cc, and with no pistons in cylinders two and five, to bring the capacity down still further and make the unit eligible for records in the 500cc class!

(The last sentence in this quote is irrelevant here, but very interesting!) It seems that the “old friends” who had been invited to the launch may have had their collective noses out of joint. The results of the Belgian foray that vindicated Healey were reported in *The Motor*, by Hastings, on August 6, 1947 (see 110 M.P.H. ON PUMP PETROL later.) The day after the Jabbeke runs the car was entered in the Ostend Concours d'Elegance and won a Coupe de Royal Automobile Club de Belgique for cars between two and three litres, so it went well and looked good!



In the two years after their introduction, the Healey Roadster and Saloon achieved successes in Alpine Trials, Targa Florio, Mille Miglia, and Belgian 24-hour Race, with more to come, all

Powered by Riley!

Riley supplied a total of 756 engines to Healey.

Sources

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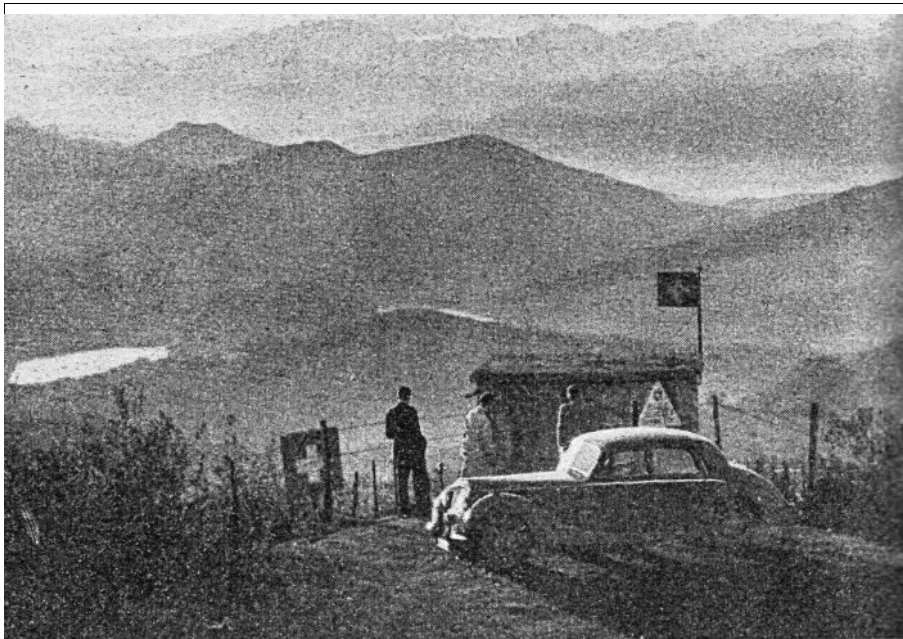
Donald Healey: His Own Way by Mike Taylor and Julie M. Fenster in *Automobile Quarterly*, Vol 24, No 4, 1986

Mystery Object Revealed:

Lucas spark plug tester of unknown date, probably early 30s.



From *The Motor*, 20 November, 1946:



The sun goes down on the unguarded frontier between Italy and Switzerland

HIGH SPEED HOLIDAY

Diary of a Continental Test Run

By Christopher Jennings

(Editor of "The Motor")

LIKE so many successful journeys, the Continental testing of two of the most interesting cars in production to-day came about more by accident than design.

It all started in the spring, when, sitting on Donald Healey's desk in Warwick, I asked him if he knew anywhere in England where we could safely drive his 100 m.p.h. motorcar in a manner which would enable us to sustain maximum speed for a considerable distance and carry out the various accurate timings so essential to "The Motor" Road Test.

In the ensuing discussion it was decided that it might be necessary to go over to Belgium, and a tentative agreement was reached that something like this should take place as soon as the Healey saloon became available. A few weeks later, during a telephone conversation, Healey remarked that, if we were going abroad, he would like to do the thing properly and take the car over some mountains, and I said that if we did this I would take along my new Riley 2½-litre so as to have increased passenger and

luggage accommodation for the party which would carry out the tests.

Nothing more happened for a couple of months, and then Victor Leverett, sales manager of the Riley company, gave me a lift to Manchester, and during the journey I mentioned our plan to him. Leverett, who, like Healey, is a veteran of many Monte Carlo rallies and Alpine trials, became enormously interested, and the upshot of it all was that, on Tuesday, October 29, the Healey and two of the big four-cylinder Rileys were shipped aboard the " Autocarrier " at Folkestone and landed safely on Boulogne Harbour that afternoon.

The crossing was made in brilliant sunshine, and the A.A. and Customs arrangements could not have been smoother or quicker throughout the journey.

One advantage of the " Autocarrier " is that the cars can be transported with full petrol tanks, and as the French most obligingly provide ample coupons for crossing their country, there is not the slightest worry about obtaining petrol in France, although it must be admitted that its quality in many cases is pretty poor.

Cruising steadily at between 60 and 70 m.p.h., the little convoy ambled over roads ranging from good to execrable. By 7.30 p.m. we reached Chalons and the hospitable Hotel Haute Mere Dieu, where rooms and dinner for everyone appeared at short notice; the general atmosphere was most friendly, and the food and wine above reproach.

Wednesday, October 30

Petrol was taken on at Chalons, and provided one is armed with the necessary coupons, there seem to be any number of petrol pumps available along the French roads to-day, and no attempt at overcharging or difficulty of any sort was encountered.

After a not too early start, Langres was reached in good time for lunch, but from then on the roads deteriorated rather badly and there were many signs of considerable battle and destruction as we approached the Swiss border. Basle was reached about 5.30 in the afternoon, and the Customs were rather slow and inquisitive, but invariably polite.

Throughout our two brief stays in Switzerland, we were lucky in having the guidance of Mr. Max Troesch, who smoothed our passage and arranged accommodation for us at the Hotel zum Storchen, in Zurich, which is a beautifully organized and superbly comfortable place, dating from just before the war and to be rated as one of the best of its kind in Europe.

To-night we gazed for the first time on menus which would conceal a copy of " The Motor," and a wine list which seemed to have very nearly as many pages. We talked motoring to our Swiss friends until far into the night, and heard of bandits in Italy who roam the Autostrada in search of drivers who are foolish enough to be caught out unarmed and alone after dark!

Thursday, October 31

An hour or two was devoted to shopping this morning, but it is difficult to make much progress when every window contains things which have not been seen in England for years, and where even the smallest request produces hoards of variety to choose from. But perhaps the most uncanny thing is the obvious anxiety to please and assist which makes itself felt in dozens of little ways. No shop assistant will let you leave the shop without accompanying you to the door, and on occasions even into the street. The barman in front of his 81 different bottles is quite shocked if you produce the money at the time of ordering a drink and prefers to keep a scrupulously accurate account for you; and if you leave his domain having forgotten to settle up in such an unaccustomed manner he would not dream of calling you back but is convinced you will return and treat him with the same honesty which seems to characterize everything in Switzerland today.

This afternoon, on the advice of Max Troesch, we climbed a fair way up the new Susten Pass and regretted that snow on the summit had closed the road. Then down again to Göschenen, where the cars were put on the train and taken through the St. Gotthard tunnel to an altogether warmer and more gentle world on the other side of the Alps. Loading arrangements for this train service are still excellent and the cost is only a little over £1.

Lugano was reached soon after nine o'clock and four of us accepted the suggestion made by Max Troesch that we should call upon Caracciola and his very delightful Swedish wife at their villa high on the hillside overlooking the lake. Caracciola is recovering from his nearly fatal accident at Indianapolis and is taking things quietly for the time being. His array of racing trophies must be among the most complete and worthwhile in the world to-day. It was a fascinating business to sit and talk cars with a man who drove for a German Grand Prix team but who never submitted to the doctrine of the Nazi Party.

Caracciola is, of course, concerned with the two 1½-litre Grand Prix Mercedes cars now in Switzerland, and assumes that the Russians have the third car in their possession which led to a suggestion by somebody that they will probably be running it on Vodka!

As to his accident, he says that it was almost certainly caused by hitting a bird. Both he and his wife have nothing but praise for the hospitality and kindness of the American people during his convalescence, and particularly do they admire the characteristic free and easy open-handed attitude of American racing drivers.

In their garage stood a 1937 drop-head Mercedes with B.A.R.C., B.R.D.C. and M.A.C badges on the front.

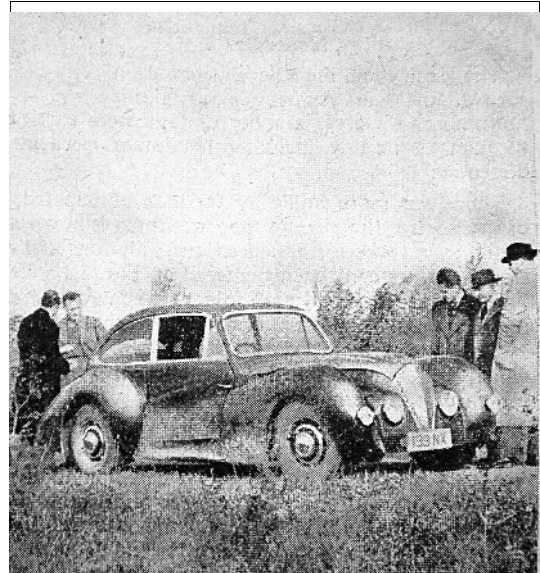
Friday, November 1

The most important thing to do when leaving Switzerland for Italy is to fill the petrol tanks as full as they will go with the admirable coupon-free

Swiss fuel, since petrol in Italy does not legally exist at all and is not even particularly plentiful on the Black Market.

Italian frontier officials at Gandria passed us through in good time and we were soon bumping along the appalling Italian roads which lead to Lake Como.

By a very fortunate chance the designer of the Healey, A. C. Sampietro, who served British interests well during the war, has an uncle who is the owner of one of the best hotels in the whole of Northern Italy to-day. To this gigantic building we drove, to find ourselves the only guests, as the hotel should have been closed for the winter and had stayed open specially for our benefit. The corridors may have echoed with our footsteps, but there was nothing hollow about the genuineness of our reception and every single thing possible was done to make up for many things the Italians lack to-day. Thus, although hot water by the normal system could not be provided, a terrifying electrical appliance in the form of an enormous portable immersion heater produced a scalding bath if enough notice could be provided.



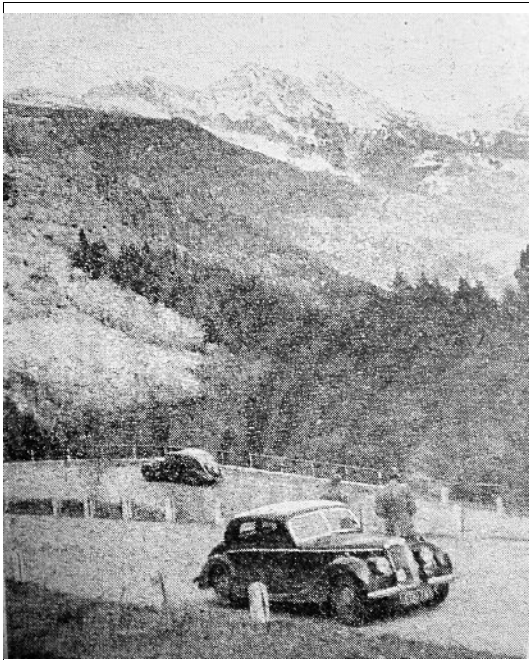
Timekeepers and officials of the Milan Automobile Club inspect the Healey after one of the high-speed test runs.

During the afternoon the weather deteriorated, but as this time had been allocated to checking over the cars before their tests on the Autostrada, the steady drizzle which set in did not worry anybody at all.

Saturday, November 2

The Healey and the Rileys were out on the Milan-Como Autostrada early this morning and a great number of tests were carried out throughout the day, including maximum speed in both directions.

There was more traffic by far than anticipated, and, of course, the discipline of the Autostrada is now relaxed to the extent where odd pedestrians with dogs and occasional cyclists can be encountered on the fast stretches. Nevertheless, a great deal of interesting data which could not have been obtained in England, now that Brooklands is closed, was collected for the benefit of road tests, which will appear shortly in "The Motor." At this juncture it is perhaps sufficient to say that both the Rileys and the Healey gave a brilliant account of themselves.

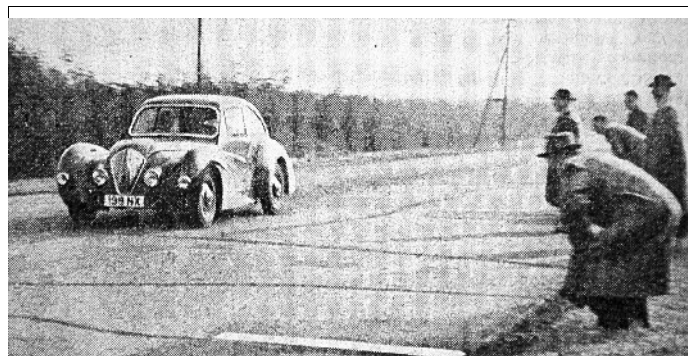


One of the new 2½-litre Rileys on a typical Swiss main road

In the afternoon, by way of relaxation, Sampietro took us up to Monte Sighiniola, a remarkable Italian mountain road built in the first world war and giving a most magnificent view into Switzerland from a point which is exactly on the Italian-Swiss border, and which, at the time of our visit, was completely unguarded. A plain wire fence, which in places is reduced to one thin strand, offers no physical obstruction to the transfer from one country to the other. This is said to be a popular smuggling route; but one can only wish that all European frontiers will one day remain and as peaceful as this particular point.

Sunday, November 3

It was pretty obvious before we left England that the Healey and the Riley might set up performance figures of a very outstanding description, and in view of the possibility of our timing gear becoming slightly deranged during the long and rough journey across Europe, it was felt that some independent witness could, with advantage, be called upon to check the most important figures. Consequently, the Milan Automobile Club was approached through Count Lurani (who will be remembered, apart from his racing activities, as our pre-war Italian correspondent), and this morning we arrived at the far end of the Autostrada to find a large party already waiting for us with professional white lines painted on the road, and warning discs representing a measured quarter-mile for the benefit of the English drivers. It was, therefore, all the more edifying to discover, in due course, that the figures obtained the previous day by hand timing from within the car over the measured kilometre were reproduced and confirmed almost exactly by the Italians. One of the main differences was the wind which, on the first day, could be described as a strong breeze, and on the second occasion was almost non-existent. Interestingly enough, the extra lift at maximum speed thus obtained by the Healey one way, plus the compensating loss on the other, produced a mean average which was equalled the following day both ways in still air. Thus was my stop-watch timing



Rock steady, silent and very fast, the Healey sweeps through the timed section on the Milan-Como Autostrada.

vindicated!

After the fun and games we adjourned to Milan for lunch, as guests of the Automobile Club, where we met the English-born Countess Lurani, who spent most of the war hiding in Italy in various astonishing disguises in order to escape the wrath of the Germans, who would have been extremely unpleasant if they had realized that Lurani had married an English bride right under their noses, so to speak.

Life in Italy is not easy for the more law-abiding population. The vice-president of the Automobile Club called at Milan station to meet a train recently and had his car stolen from him at the point of a revolver. The Lurani's have had three raids on their country home in as many months, and on the last occasion their watchman was murdered.

But from the point of view of a party of Englishmen trying to replace their lost facilities for high-speed testing, it must be recorded that everywhere we have been in Italy we have found help and kindness, and it is such things that will do much to heal the bitterness and the justifiable anger of the British people against Fascist Italy of 1940.

Virtually within five days of leaving England our tests and data were collected and checked. The party which had been such an enjoyable team began to break up as the cars went their respective ways. Leverett and crew made a dash for home, while Healey took his motorcar round by the South of France. My wife and I started packing up for the return to Switzerland where there other interesting cars to see and drive.

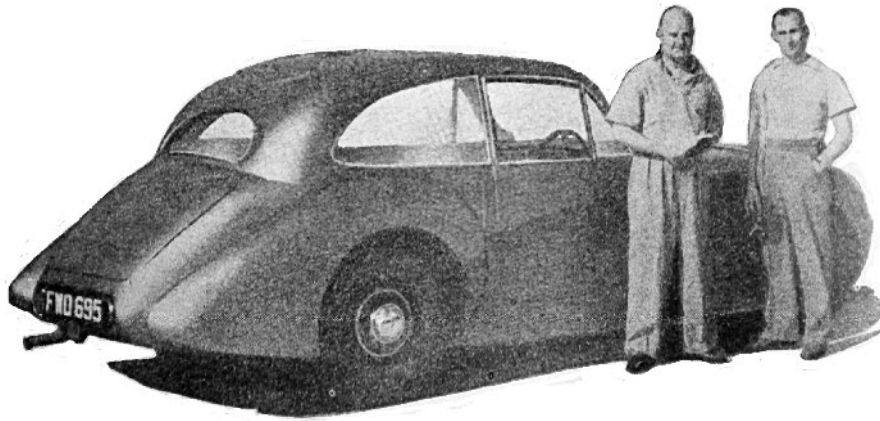
Emerging through the Italian Customs at Chiasso, I was convulsed by the sight of one of their Customs officials seizing my ex-Army Indian-pattern sweater of the type used in very large quantities in the desert by the British from 1940 onwards, and later immortalized by Montgomery. From a torrent of Italian, I understood that I was being accused of purchasing this new in Milan, and the unfortunate Italian was so abashed when it was explained to him that he, above most people, should know what a British military garment looked like, that all opposition to our passage through the Customs faded out and, in due course, in a welter of inefficiency, we got through unscathed.

It is not the intention of this article to deal in detail with the performance of the cars, because the road tests, as well as the first description of the new Riley will appear in "The Motor" in the near future. It should, however, be stressed that their speed and appearance made a profound impression everywhere they went and in a party consisting of at least three British competition drivers who earned themselves a sound reputation in pre-war days, I found it fascinating to listen to a cross-section of their candid views on performance.

If the behaviour of these three British cars over the appalling roads of France, mountain climbs of Switzerland and the motor roads of Italy is an indication of the trend of our post-war design in general, then British

motorists are going to be able to take abroad vehicles superior in every way to the greatest products of the Continent in the pre-war years.

From *The Motor*, 6 August, 1947:



SUCCESSFUL TEAM—Donald Healey (left) and Roger Menadue, of the Healey experimental staff look justifiably pleased as they pose beside the 2½-litre saloon after the speed tests.

110 M.P.H. ON PUMP PETROL

Healey Saloon Puts Up Remarkable Speeds in Belgium on Pump Fuel with a Certified Compression Ratio of 6.975 to 1

By H. C. Hastings

IN January, 1946, when details of the Healey were being prepared for publication, Technical Editor Pomeroy shut himself in his office, wedged his monocle firmly in place and got busy with a slide rule on the facts available regarding power curves, frontal area and drag coefficient (reliable figures for which were, fortunately, available from wind-tunnel tests with a model). When he emerged a little later, the monocle was dangling at the end of its string and the predictions which he made caused quite a stir in the editorial circle. They caused an even greater stir when, in due course, they were included in the description of the new model in "The Motor" on January 16. But predictions of outstanding performance have been made before, and, monocle or not, these particular figures remained to be realized in practice; which is not always quite the same thing.

Towards the end of the year, the opportunity arose for the Editor to take a saloon model to the Continent for test, "G.B." plates being an essential part of the test apparatus, since this country no longer possesses a spot suitable for trying out potential 100-m.p.h. cars under maximum speed conditions. The results of these tests (which appeared in "The Motor" of December 4, 1946) were quite as remarkable as to the predictions, and, in fact, tallied with them to a remarkable degree. In particular, the maximum speed obtained agreed to within a mile an hour of the prediction of a probable 105 m.p.h.

Two sets of figures were obtained. The first, recorded by "The Motor" staff, gave a mean for the kilometre of 104.14 m.p.h., with a best run at 106.65 m.p.h. In view, however, of the fact that a small error in timing at these speeds can make an appreciable difference in the result, coupled with the possibility of the timing apparatus having become deranged in the course of a strenuous journey across Europe to the Milan-Como Autostrada, the co-operation of the Milan Automobile Club was sought, and the runs were repeated the following day. On this occasion there was no wind (compared with a moderate breeze the previous day), and the mean of four runs worked out at 103.46 m.p.h., with a best run at 104.65 m.p.h., the latter figure, interestingly enough, tallying almost exactly with the previous day's mean speed.

These results were obtained on Swiss petrol, and this has led to considerable speculation in some quarters as to whether the car could put up equally good figures on the sort of petrol more normally available to British motorists. An opportunity to end this speculation arose on July 24, when Lt.-Col. A. T. Goldie Gardner and the Royal Automobile Club de Belgique co-operated by placing the Jabbeke-Aeltre highway at Donald Healey's disposal following the successful recordattempts of Gardner and Lurani. It was arranged that Healey's run should be officially timed by club, thus ensuring the authenticity of the speeds.

Two other important facts remained to be established however. One was that the production model to be used was, in fact, of normal engine size and compression ratio. The other concerned the fuel, which was to be the standard Belgian pump grade.

So far as the first point was concerned, the R. A. C. agreed to measure the engine dimensions and compression ratio, and I arrived at the Club on Wednesday July 23, to find Mr. Hudlass, of the R.A.C. technical department, completing the sealing of the engine after measurement. A certificate was then issued, including details of the engine dimensions and compression ratio and also details of the sealing for the information of the Belgian Club. The measurements stated on the certificate disclosed the engine size to be 80.5 mm. bore and 120 mm. stroke (2,443 c.c.), and the compression ratio to be 6.975 to 1.

Little Time to Spare

Owing to heavy bookings on the Dover-Ostend passenger line, the car had to be sent by cargo boat from Tilbury, and I therefore left Healey and took the passenger steamer in order to be sure of reaching the Jabbeke-Aeltre motorway by dawn the following morning to witness the Gardner and Lurani record attempt.

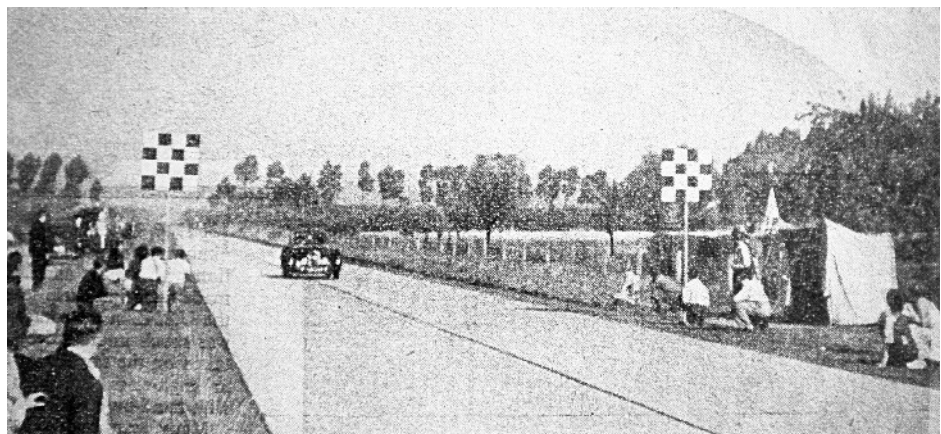
Donald Healey did not arrive until much later in the morning owing to shipping and Customs delays, and by the time he had filled up with Belgian pump petrol and arrived at the record stretch, the racing cars had completed their runs and he was asked by the timekeepers to be ready with the Healey immediately after lunch.

This gave very little time for checking over the car and making sure that carburation was suited to the Belgian pump fuel and the hot weather. Healey managed, however, to put in a few trial runs which established the desirability of a slightly enriched carburetter setting (actually achieved by the use of No. 6 needles for the S.U. carburetters in place of the No. 5 needles normally employed), and also revealed the fact that the gear ratios with standard wheels and tyres (5.75 by 15) were entirely suited for the job in hand. Actually Healey had with him a pair of oversize wheels and tyres (5.75 by 16), but these showed no advantage.

In the afternoon, therefore, Healey presented himself to the timekeepers, engine seals were examined, and he got straight on with the job.

The first run over the kilometre gave a time of 20.39 secs., improved fractionally on the second run to 20.33 secs., giving a mean speed of 176.557 k.p.h. (which works out at 109.7 m.p.h.). For the mile runs, the respective figures are 32.48 secs. and 32.18 secs., giving a mean speed of 178.374 k.p.h. (110.8 m.p.h.). Fastest one-way run was over the mile—at 111.87 m.p.h.

111 M.P.H.—The car flashes past the timekeepers at the conclusion of the fastest sprint.



These really remarkable figures are, it will be noticed, even better than those achieved on Swiss petrol in Italy. The explanation lies in the fact that the Jabbeke-Aeltre motorway, which gives a total run of over 14 kiloms. and has the nearest approach to a perfect surface of any road I know, is vastly superior to the Milan-Como stretch where the previous tests were made—a fact which was confirmed by Count Lurani.

After the runs, a sample of the fuel was taken by the Belgian Automobile Club, and Healey proceeded back to the Grand Hotel Osborne, Ostend, with the satisfied grin that comes from reaching more than target performance.

That should have ended the proceedings, but, in the evening Gardner announced his intention of having a crack at doing even better with the Gardner Special the following Sunday morning. That led to the suggestion that Healey should follow him again with the idea of establishing Belgian sports car records in the 3-litre over the five kilometres and five miles, his performances in the morning already ranking as local Belgian sportscar

class records for the flying kilometre and mile.

On the Sunday morning, Healey duly presented himself as soon as the course was cleared, proceeded on a warming-up run, and turned round at the far end ready for his attempt, only to be told by an agitated gendarme that he could not use the road as record attempts were just about to take place! Rather a nice commentary on the comfortable appearance of the car.

I watched these attempts from one end of the measured kilometre (the Belgian Club would not allow a passenger).

The figures set up were, in some ways, even more remarkable than the previous Thursday's efforts, with 5 kiloms. at 172.711 k.p.h. (107.312 m.p.h.) and 5 miles at 172.419 k.p.h. (107.136 m.p.h.). As soon as all this was over, the car was run up for a standing kilometre, which was achieved at a mean speed of 109.09 k.p.h. (67.78 m.p.h.), whilst the standing mile was covered at a mean speed of no less than 124.09 k.p.h. (77.785 m.p.h.).

For these Sunday morning runs Healey used the larger (16-in.) wheels simply to give the engine a slightly easier time (to the extent of approximately 400 r.p.m.) on its flat-out run of approximately 7 miles in each direction, although the slightly higher effective gearing obtained was a handicap on the standing-start runs.

All the figures quoted are, of course, subject to official confirmation, and so is the result of the fuel test, which showed an octane value of between 70 and 72. When this confirmation is received from the Belgian Club, Donald Healey will be in possession of official figures to substantiate his belief that the Healey is the fastest production car at present manufactured in the world.

One final word. I motored back to Ostend with Healey immediately after the timed runs, and, three up, we held 110 m.p.h. in perfect comfort for some distance. In the afternoon, the car was put in the Concours d'Elegance and won its class. The following day, we crossed to England and I drove it to London. After what has already been recorded, it would be sheer bathos to praise its performance. But it is not out of place to add that I found it as tractable in traffic as any family saloon.



From Motor Sport, September 1947:

A Healey advertisement after the Belgian adventure—

SEPTEMBER, 1947

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MOTOR SPORT



With acknowledgments to "THE MOTOR"



A normal production Healey 2.4-litre Saloon achieved the maximum speed of 111.87 m.p.h. and a mean speed over two ways of 110.8 m.p.h. on the Jabbeke-Aeltre Motorway, Ostend, in July. The Car used was a standard model in all respects, the Bore and Stroke with the Compression Ratio of 6.97 to 1 being certified by the R.A.C. Standard Fuel of Octane Value 70/72 deg. as certified by the Royal Automobile Club de Belgique. This substantiates the claim that the Healey Saloon is the "FASTEST PRODUCTION CAR IN THE WORLD"



The following recent awards prove, in addition, the Healey's outstanding appearance, reliability and comfort.

APPEARANCE—Concours d'Elegance at Ostend:
 Won Grand Prix d'Honneur.
 Won Coupe of the Royal Automobile Club de Belgique
 (Class : Closed Cars between 2 and 3 litres.)

RELIABILITY —French International Alpine Reliability Trial:
 Won outright 3-litre Class Prize.

COMFORT —French International Alpine Rally:
 Won 3-litre Class Prize for the most comfortable Open Car.

CHASSIS (ex works) - £950
IMMEDIATE DELIVERY

SALOON £1,500 ROADSTER £1,500
 (Plus Purchase Tax)



DONALD HEALEY MOTOR CO. LTD. WARWICK, ENG.

Part of a Press Release:29th June 2009**RILEYS RUN RIOT AT BRIGHTWELLS**

An extremely rare 1934 Riley MPH topped an impressive list of results at the Brightwells Classic Car Auction in Leominster on 24th June when it was sold for a record £214,500, some £30,000 over its top estimate. Bidders had travelled from Switzerland, Germany, Belgium and America to bid on the car, one of just 12 examples made, but it was finally knocked down to a private UK buyer, much to the delight of the many Riley devotees present who had feared that it would end up abroad.



The MPH was one of a dozen pre-war Rileys in the sale, many of them from the estate of Ivor Halbert, a Bristol-based engineer and collector who died earlier this year. A 1936 Riley Sprite from the same collection made £84,700, a 1935 Riley Imp made £61,600 and a 1934 Riley Kestrel 12/6 more than doubled its top estimate to make £41,800. A beautifully executed replica of an MPH made £57,200 and a replica Sprite made £46,200, while a replica Frazer-Nash BMW doubled its estimate to fetch £78,100.

In all some 150 cars and motorcycles came under the hammer of which 105 found new owners to give an impressive sale rate of 70% in an auction which grossed over £1.6 million. "It was our biggest sale to date and we were delighted with the result," said Brightwells classic car expert, James Dennison. "It proved once again that there is no shortage of money out there for rare and desirable machines that are correct and with good provenance. The prices achieved for the pre-war Rileys, in particular, were exceptionally

high and have set new benchmarks for the make."

To see all the results please visit www.brightwells.com or phone the office on 01568 611122. Brightwells next auction is on 23rd September and entries are now being invited.

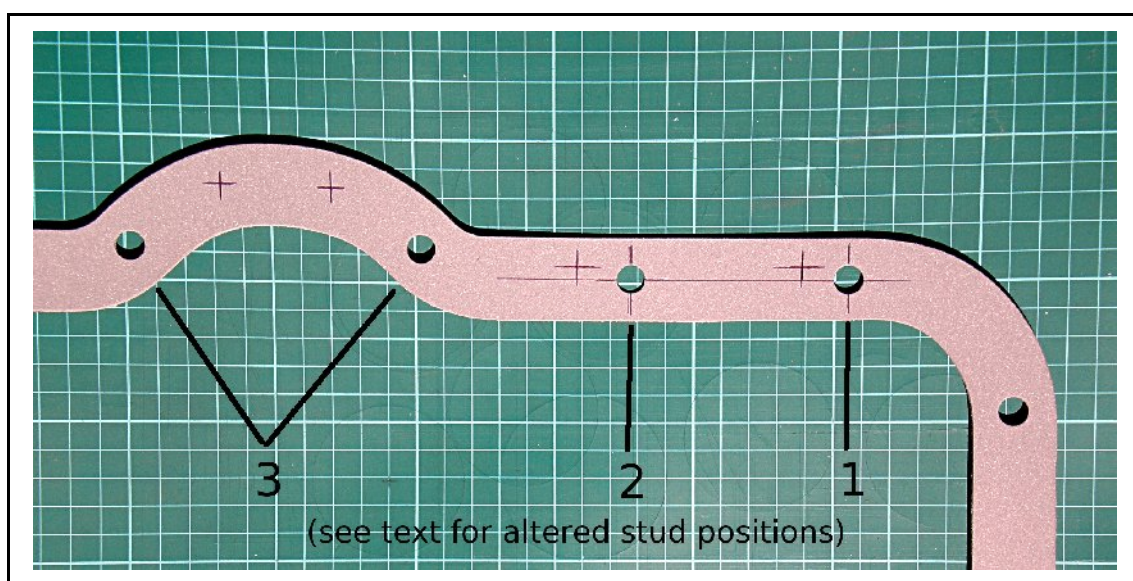
All the prices given above include the 10% buyer's premium.

Technical Tip:

Riley 2¹/₂ Sumps

Robin Hull

if you have ever been unlucky enough to have had a requirement to remove and replace the sump from a 2¹/₂ with the engine installed in the car, you will know that the job is possible but only just. The whole operation can be made somewhat easier. The most difficult setscrew to access is the one at driver's side rear (1) which is above the cross member. By drilling and tapping a new hole about 5/8" forward and 3/16" outboard of the original, the set screw can be removed and replaced by using a socket and extension. The set screws along the sides (2) are difficult due to the holes being too far inboard. One remedy is to drill and tap new holes about 5/8" forward and 3/16" outboard of the originals. The holes either side of the bulge to accommodate the oil pump (3) can be moved to inside of the gussets on the block (about 1¹/₂" centres). Another worthwhile operation is to provide two holes drilled and tapped for jacking bolts to facilitate breaking the joint. Threaded holes in aluminium should be National Coarse or Whitworth not UNF or BSF. Of course all of the above does not in any way alleviate the problem of the positioning of the sump plug which leaves at least a half litre of oil behind in oil changes and is in a difficult place behind the torsion bar.



Technical Talk:

Tyres for Pre-war Rileys

*The guest speaker at the Victorian Club's August Clubnight was Ben McKinnon from Antique Tyre Supplies. Marilyn Threlfall wrote a report for the October 2009 issue of **The Blue Diamond**, much of which is reproduced here with grateful acknowledgement.*

Alan and Noelene McKinnon, Ben's parents, purchased the business in 1977. It was a small business which they ran alongside their main mechanical repair and restoration business, Alan McKinnon Motors. Antique Tyre has grown since these early days. In 1978 they stocked around 60 - 70 different sizes and makes. In 2008 it was closer to 400 different sizes and makes.

Bead pinching of the tube was a common problem experienced by a number of the Antill Rally participants. This is not a new problem with literature on this issue dating back to the 20's. The most common cause of tube pinching is the difference in length of the bead surface in the rim and the length of the bead surface (or toe) on the tyre. Generally the Riley rims appear to have a 10mm bead and tyres usually around a 12mm toe. This leaves an area where the tube can be pinched between the rim and the tyre. Even the tyres going flat overnight were probably due to the same problem, due to movement as the tyre and tube cooled. This problem can be overcome by fitment of a rust band. This is a rubber ring or flap approx 6" wide that is fitted over the tube and down the sides of the inside of the tyre. This prevents the tube coming in contact with the rim and any possibility of the tube being pinched. This is a \$40 per wheel investment that could save a lot of problems.

There were lots of questions and discussions. Some of the major points made were—

- Tyre bead or toe width does not vary by tyre size but generally by manufacturer.
- Using a knife to put a 1/8" chamfer on the inside edge of the tyre (as done by some members), can help prevent pinching but there is a real risk of damaging the tyre and making it unsafe to use.
- A tyre creeping on the rim is generally due to too low air pressure, wrong size tyre for the rim or wrong size rim for the tyre.
- Country of manufacture and quality: Tyres - India, USA, Taiwan => Very good, China => quality is not there yet. Tubes - Michelin tubes, made in Italy, are expensive but excellent quality, also approx. 3 to 4 times the weight (thickness) of standard tube. Most quality tubes sold by Antique Tyre are out of Denmark.
- Brand vs. Price: Firestone & BF Goodrich tyres (from USA) are more expensive due to higher freight cost and a licence fee made by the manufacturer to use these trade names. Excelsior (from India) less expensive due to lower freight cost and no licence fees. Quality of all

these brands is the same. Your choices are down to price and tread pattern preference.

Things to watch for—

- When fitting tyres check for "build sticker" - little white plastic stickers glued to the inside of the tyre for the manufacturer to record build information. These stickers, when a tube is fitted, rub on the tube and will cause it to fail. Always check and remove these stickers. Most common on 16" and smaller tyre sizes.
- Bead sticker should always be removed as they can prevent the bead from seating properly.
- Check the tyre air pressure. Lower pressure may give a more comfy ride but cause significant tyre problems.
- Ensure correct size tubes are fitted.
- Ensure tyre is seated properly.
- Always use talcum powder when fitting tubes and tyres. Do not use detergent, grease, fats or oils.
- To fit a tyre with a rust band - fit the tube in the tyre, and then fit the rust band over the tube. Fit the entire assembly onto the rim.
- Never use a plastic or electrical tape on your rims when fitting tubes. These plastic tapes will rub on the rubber tube and will cause the tube to fail. Cloth tapes or rubber rim strips (to protect the tube from the spokes) are okay.

Mystery Car, or How Much Riley Is In There?

Mike Bramwell was recently sent this photo of a 1930 Riley-Ford by a friend. It is in the U.S.A.



For Sale

Pathfinder, stalled restoration project.

Complete car with new windscreen and rear window, new brakes and tyres.

The only major rust is in on the inside of one front wing which was sandblasted and treated ready for welding. The only other rust is some minor stuff around the front of the cills.

Engine used to run well but has not been started for years.

Located in Tarragindi.

John Anderson 0402 189 038

1929 Nine Mk IV Roadster, chassis no. 608032, Australian body, six stud wheels, 13 inch brakes, 19/32 inch crankshaft.

The engine has had a full rebuild with new pistons, bearings, sleeves, full head reco etc etc. The gearbox has new bearings etc. New honeycomb radiator core. Body work has new dash, scuttle and "tool box".

The full history is unknown. Purchased in March 1984. Previous owner for about 5 years was George Munday (NSW Central Coast).

In no hurry but the car is definitely for genuine sale and so far there has been much more interest than I expected. It would be nice for a club member to purchase the car, but I am starting to advertise the car widely. Open to offers.

Robert Lord ph 02 6842 5014 fax 02 6842 5016 mobile 0427 424640



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