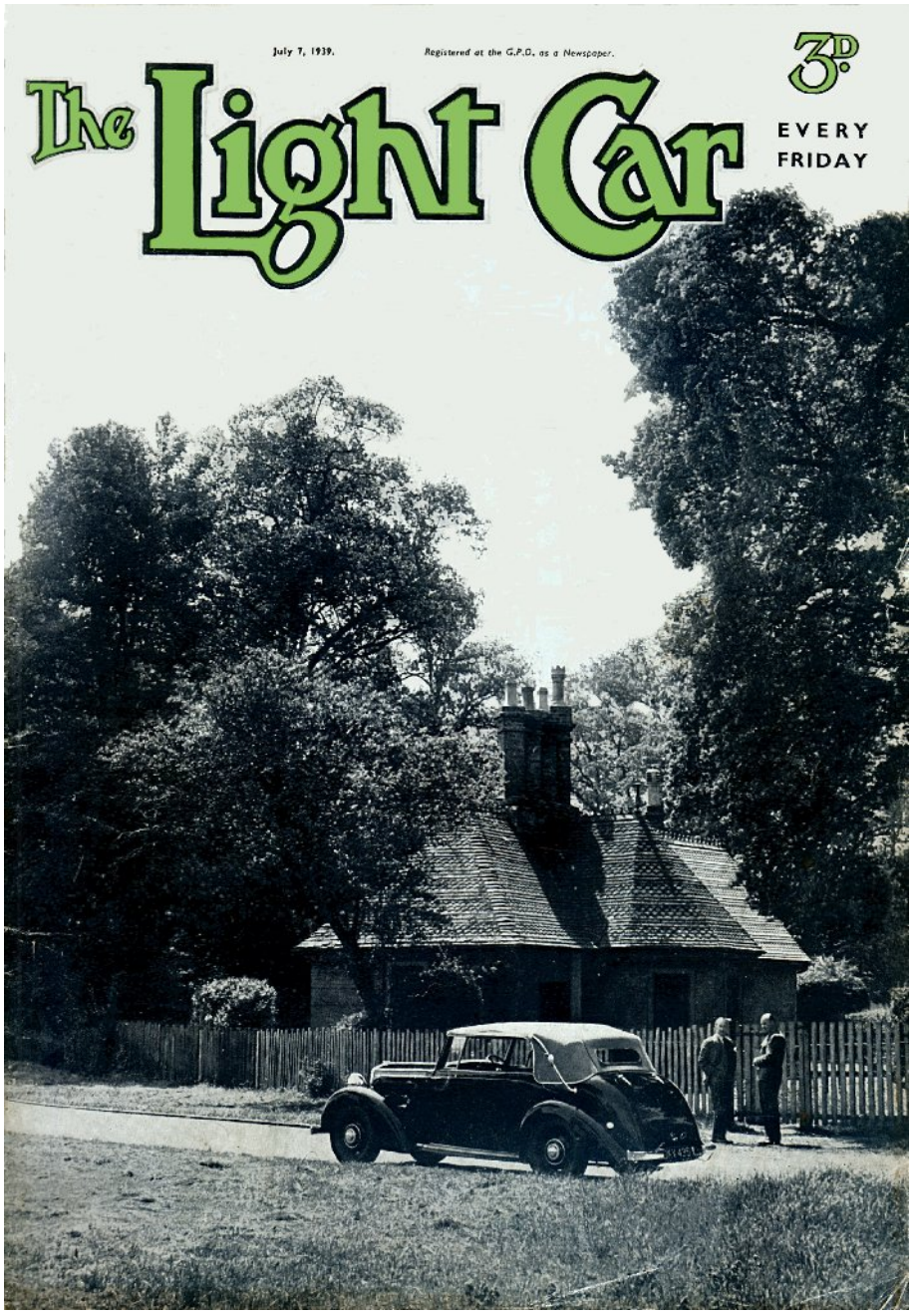
TORQUETUBE

Newsletter of Riley Motor Club Qld Inc. **July 2009**



Next Meeting: **8:00 pm Thursday, 9th July**
Queensland Sporting Car Club
206 Montague Road
WEST END 4101

Editor: Linden Thomson (07) 3269 6426 lindenthomson@optusnet.com.au

Minutes of the OGM of the Riley Motor Club, Qld., Inc. Thursday 11th June, 2009, at Brisbane Sporting Car Club Rooms, West End.

Meeting opened by President at 8.10pm. 20 members/guests present.

Apologies: Elliotts, D. Phillips, Burrows, Jacksons, D. Cameron, W. Short, D Thomson, B. Young.

Minutes from previous meeting; moved S. Hill seconded T. Judd that they be accepted; carried.

Inwards Correspondence:

Thank you letter from 'Blind Citizens Australia' re Lakeside day.

Notice for All British Day.

Australian Classic Car letter.

Email from Peter Dahm re resignation from Club.

Letter from Graham Proctor.

M'ship Application/cheque from A. Johnson.

Invitation to Summerland Sports and Classic C/C display 2nd August.

Tru Brit Mag.

Outwards Correspondence:

M'ship Application to J. Anderson, Burleigh Waters.

M'ship to A. Johnson via email.

Letter to Graham Proctor.

Moved W. White, seconded L. Thomson that In. Corres. be received and Out. Corres. be accepted.

Treasurers Report, May, 2009.

Balance as per Bank Statement 30th April, 2009		5608.11
Income.		
Membership fees and donations	245.00	
Interest	.71	245.71
Expenditure.		
Brisbane Sporting C/C Room rental	55.00	
L. Thomson, N/letter exp.	220.98	275.98
Balance as per Bank Statement 31st May, 2009.		5577.84 cr

Moved by R. Phillips, seconded S. Schooneveldt that report be adopted.

Club Captains Report:

Details given for the outing proposed for Sunday 14th June.

Details given for the outing proposed for Sunday 12th July.

Wendy J. spoke re the "Events Form" and the listed "outings" *

Some discussion on the Bribie Is.Outing.

*Question raised by Simon S. re the listed special weekday runs with resultant discussion. Agreed by those concerned that such outings be discontinued until further investigation made with perhaps the motoring body Q.H.M.C. Ray B. will be asked to follow up with that group.

Spare Parts Report:

Jack W. pointed out that sales have been slow lately so…come and BUY SPARE PARTS.

Jack has asked if anyone has some old engine mounts…a pair of 2 ½ rear mounts or 1 ½ front ones to use as samples for reconditioning. Contact Jack if you can help.

Following a request from the N.S.W. Club re replacement axle for a 1½ , Jack found that with some minor modifications a 2 ½ one will fit !!

Linden T. looking for a set of extractors (2 ½) ex N.S.W. parts or access to some for measurements.

Registrars Report:

The 2 ½ ex Bill Short, ex Peter Willis now with Arthur Johnson.

The pre war "Special" of Alan & Sheila Hill sold to W.A.

The 2 ½ of Pat & Betty Elliott sold to Caloundra.

General Business:

A special thanks to David Schoch for creating a collection of magazine Torque Tube on "Disc" and thanks to Bill Short for making copies for interested members.

Meeting asked if anyone interested in "Riley" embossed glasses. Ross P to follow up.

Matthew F. advised that whilst working on his car, it was found that reassembly does not always follow a reversal of disassembly (it may be wrongly fitted in the first place !!)

President praised editorperson for June edition and suggested that perhaps we could follow the example of the U.K. Register mag. whereby a smaller newsletter comes monthly giving outing details/minutes etc. and a quarterly one with major information articles….Editor to consider…

Mention made that there does not seem to be many brochures re events being posted to clubs/comment that other Clubs have similar situation. It was suggested that events are probably on web sites…..although Q.H.M.C. does have a calendar of events.

Meeting closed 9.00pm.

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

Next Meetings:

Thursday,13th August, 2009

Thursday, 10th September, 2009

BRISBANE SPORTING CAR CLUB

Unit 1, 206 Montague Road, WEST END, Q 4101

(UBD map 21, P8, approximately opposite Donkin Street).

Check the information on the 2010

National Rattle of Rileys

in this issue.

Club Captain's Report: Wendy Judd

Trevor and I will be away this month, so Ross Phillips has volunteered to organize the run. Here are the details as provided by Ross:

Outing for July.....Sunday 12th

MEET at the Phillips' place, 34 Blackwood Street, East Ipswich (map 213 in your UBD N11) from 8.30am or later for a "sausage sizzle" and an opportunity to view the completed fitment of the supercharger to race car `Victor'. He will have had his first sprint meeting under his belt by that date and a report on better performance (or otherwise) will be a subject for comment.
There is also a `37 Kestrel in the back shed that not everyone has seen.

We will depart about 10.00 - 10.30am or when the sausages run out (whichever comes first).

It is then our intention to travel to Haigslea, about a 40 minute run from East Ipswich, on the Warrego Highway to visit the Australian Motorcycle Museum. There are 180 veteran/vintage/classic and modern motorcycles on display. Entry fee is $15.00 each. Most of us will have received our stimulus package payment by then so we can help the economy by spending some of it in this part of the State.

Depending on the time of day following the museum tour, lunch and/or refreshments can be had at the Sundowner Hotel which is almost next door to the museum .... (I don't think the hotel has been featured in Gourmet Traveller, but I could be wrong!) ....and off down the highway and home in time to mow the grass.

More travel details will be given on the day..... for further enquiry - Contact Dianne or Ross Phillips 07 3281 3807.

On the Cover:

The front cover of *The Light Car*, July 7, 1939, described thus:

> OUR FRONT COVER
>
> DO you explore the by-ways ? If not, you are missing the peace and the charm that is typical of the English countryside. Our photograph was taken at Barford, Warwickshire. The car is a Riley touring saloon (see developments in this issue).

Editor's Notes:

I recently acquired some small bundles of the N.S.W. Club's *Riley Review* and the Vintage Sports Car Club of Australia's *The Vintage Car* from the mid-60s to mid-70s (with many gaps.) There's a lot of interesting stuff in both of these, with a surprising amount of Riley-related material in *The Vintage Car*, reflecting the emphasis on sporting use of member's cars at the time. Watch for future TT articles.

It was however a response from Arnold Farrar, then Hon. National Secretary of the U.K.-based Riley Motor Club, in the December 1973 *Riley Review* to an article by Harry Frape in the September issue that prompted the content of this issue of TT. Harry was Editor at the time and was an enthusiastic Pathfinder owner. He had just read *A History of the World's High Performance Cars* by Richard Hough and Michael Frostick who made the claim that the Pathfinder was 'the only really nasty car to carry the Riley name.' Harry's article vigorously refuted this claim!

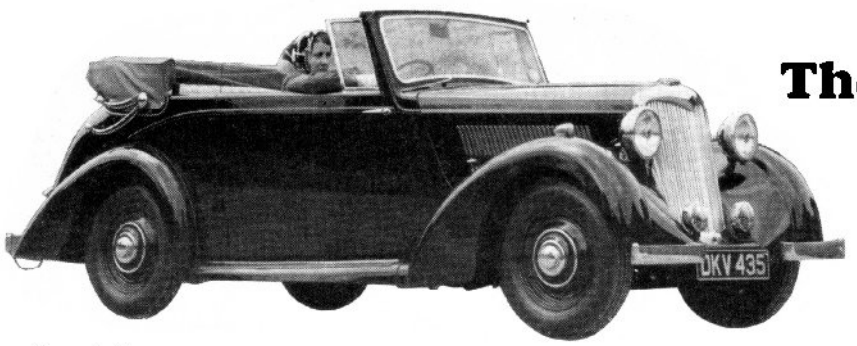
Arnold Farrar was a regular correspondent to the *Review*, commenting on articles and providing information on models and production history. This time his letter read in part:

> I was interested to read 'Extract from the History of the World's High Performance Cars' where the Pathfinder is designated the only really nasty car to carry the Riley name. Whilst I know, only too well, that Pathfinders had a lot of trouble, including brakes, Panhard rod mounting bracket and clutch "judder", I (personally) would have rated the Pathfinder higher than the immediate pre-war 1½-litre and 16-h.p. saloons—in my humble opinion, these were the poorest cars that Riley ever produced, lacking many of the qualities of the former Riley (Coventry) Ltd productions and yet not embodying the considerable improvements that were built into the post-war cars.

Most of us know something of or have owned or driven a Pathfinder or have been regaled with tales of their virtue—just ask Brian Jackson—but know much less of the 1938-9 cars, so this seemed a good opportunity for the 'Seventy Years Ago' material for this issue.

The only car from the pre-war Nuffield era that I know is Roslyn Walker's 12-h.p. Saloon in N.S.W. This had been owned by Chum Vidgeon of the Somerset Equestrian Centre at Fitzgibbon who had it bodily restored here in Sandgate by Bill Cardno with Kerry Lewry doing the upholstery. There may be one or two more interstate, but they are certainly quite rare in Australia.

Arnold Farrar himself described the 12-h.p. Saloon and Coupé in the September 1966 *Riley Record* as part of the series of model descriptions he wrote:



The 12-h.p. Pre-war Saloon and Coupé

This model was on the drawing board at the time when Riley (Coventry) Ltd. was bought by the late Lord Nuffield and re-sold to Morris Motors Ltd.

It was quite a departure from the models built up to July 1938 by Riley (Coventry) Ltd. The frame was basically similar to that which had been used in the Merlin and Victor models, i.e. it was a boxed frame of lighter build than those used for the former Adelphi and Falcon saloons and the outer box-member was pierced with a series of holes about 1 in. in diameter. This was done for lightness and to give access for the electrodes used in spot welding the outer member to the inner.

The engine generally followed the design of earlier 1½-litre models with three-bearing crankshaft threaded into the case as an assembly from the rear, hemispherical combustion chambers, twin camshafts, and short push-rods, etc. The main innovations were in the dynamo drive and engine mountings. The former dog-driven dynamo in line with the crankshaft gave way to one mounted on the near-side of the engine and driven by belt, and the engine mounting bar through the block with its conical rubbers was superseded by front rubber mountings of more orthodox design. The very costly pre-selector gearbox (or its alternative, the three-speed box and overdrive) gave way to a four-speed gearbox with synchromesh on the three highest gears. Clutch was similar to that on the previous overdrive models, i.e. Borg & Beck single plate.

Harry Rush, the designer, wished to retain a torque tube yet at the same time to use one of the final drive assemblies available within the Nuffield range of cars, so made the best compromise, by fitting a short open propshaft (facilitating removal of gearbox or rear axle) followed by a torque tube. Brakes were Girling rod-operated and suspension semi-
elliptic all round, employing Harrisflex bushes in lieu of brass and

thereby reducing lubrication points.

By the end of 1938 `pudding' tyres had become fashionable—indeed some 16-in. low pressure tyres had been supplied to special order on 1937/8 cars—so those cars appearing at the 1938 Show wore 5.75—16 tyres mounted on disc wheels. Some owners bemoaned the disappearance of the centre locknut wire wheels, but appreciated the time saved in cleaning.

The body was a four/five-seater, six-light, four-door saloon with enclosed luggage boot at the rear. Inter-axle seating as on previous models was continued, but with the engine being mounted farther forward there was more space between front seat squabs and rear seat cushion, and this allowed an almost flat rear floor and eliminated the rear foot wells of earlier series. Spring seats replaced the earlier air cushions.

Other innovations were a remote-control extension to the gearbox and a torsion bar stabilizer coupling the two rear hydraulic shock absorbers.

There was a choice of seven colour schemes and the price of the saloon was £310. A Sprite series, with twin carburetters and a raised compression ratio, entailed an extra charge of £25.

Announced, but only made in very small numbers, was also the 12-h.p. drophead touring saloon (top of page), which was really a two-door, four-seater, glass-enclosed drophead coupe, selling at £335 or £360 with the Sprite engine.

And how did they perform? Standard saloon road test showed a 72 m.p.h. maximum, with a fuel consumption of 27-32 m.p.g. and 0-50 m.p.h. in 18.6 seconds. A certificate of 30 m.p.g. was issued on each single carburetter car. I have no road test of the Sprite series, but would suggest 80 m.p.h. maximum, 24-27 m.p.g. and 15/16 seconds from standstill to 50 m.p.h.

A road test of the 12-h.p. Sprite Touring Saloon is included in the 'Seventy Years Ago' feature in this issue. In fact, a large proportion of this issue covers the immediately pre-war Rileys.

Thanks to Robin Hull for his contribution on wheels and tyres for the RM. This is a much discussed issue among members, and Robin's solution seems to be very well thought out. There'll probably be a rush on Navara wheels now. Maybe we should organize a bulk purchase.

I've also included that part of Transport and Main Roads' Modifications brochure covering wheels and tyres so you can see what the rules are.

Seventy Years Ago: LT

1939: Seventy years ago, almost to the day before this is being written, the English magazine *The Light Car* (issue of July 7, 1939) featured the Riley 12 h.p. Touring Saloon—we would call it a drop-head—on the cover as does this issue of *TorqueTube*. Within the magazine, there were three items covering this model produced by Riley (Coventry) Successors Ltd now part of the Nuffield organization.

First was a brief announcement:

RILEYS FOR 1940.

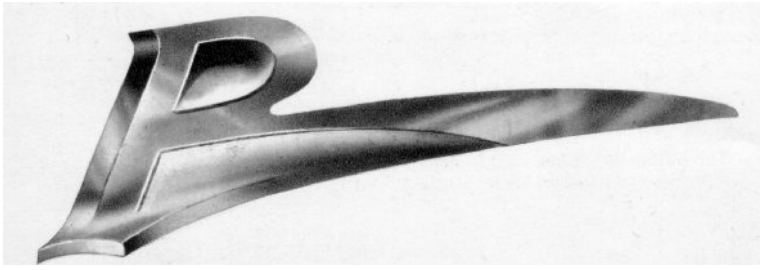
Four 12 h.p. Models.

FOUR light cars are included in the Riley range announced at the end of last week. They are the 12 h.p. saloon at £310, the drop-head touring saloon at £335, the Sprite saloon at £335, and the drop-head Sprite saloon at £360. The models are unchanged from those already fully described in this journal and will be continued for the coming 1939-40 season. A road test of the Sprite drop-head saloon appears in this issue.

A particular feature of the 12 h.p. model is the petrol consumption guarantee, which is issued with all models. It is fully discussed on another page.

These two articles are transcribed here. Of course, this programme was somewhat disrupted by larger events to come.

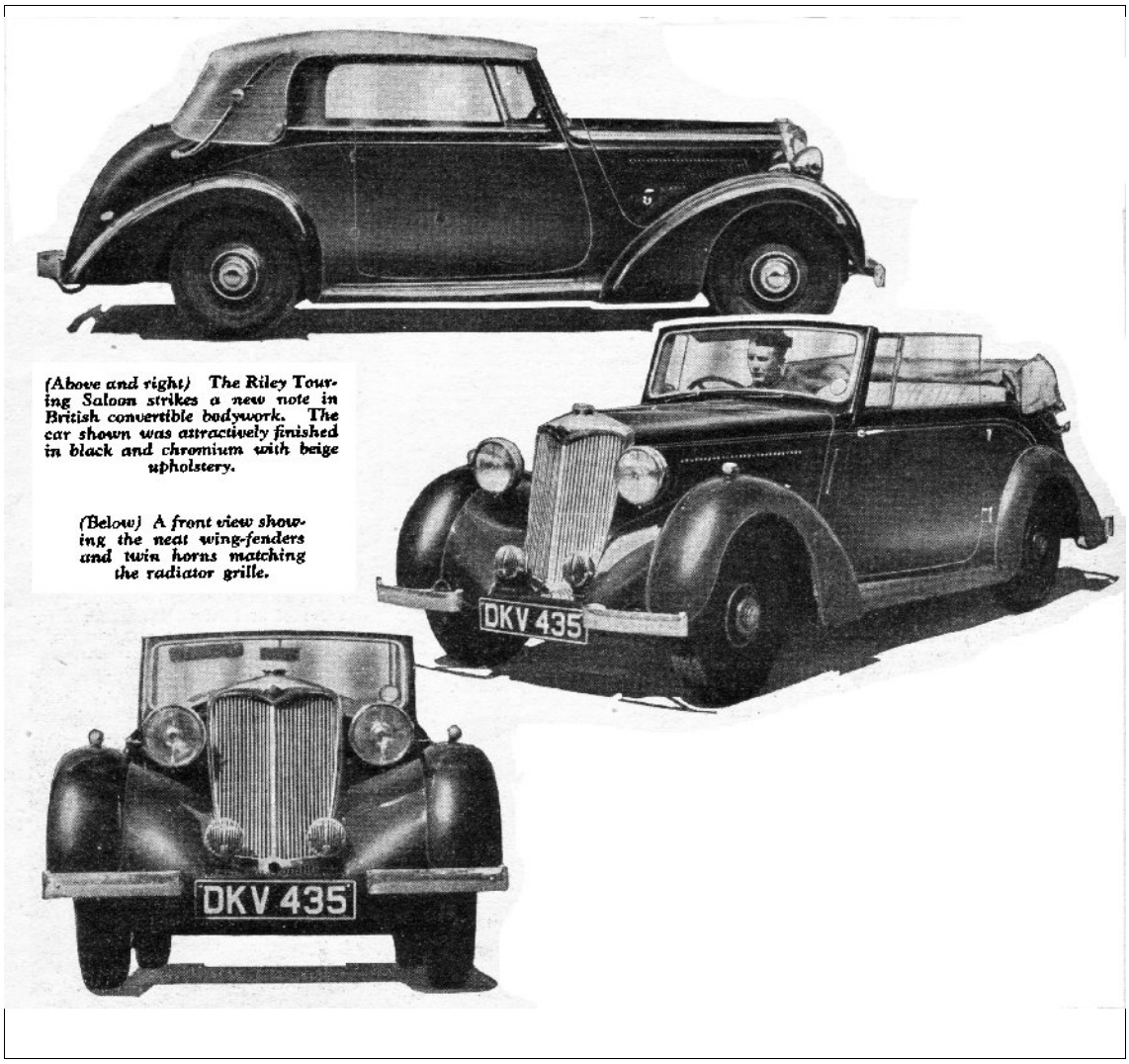
Interestingly, a new radiator mascot, reminiscent of that on Bentleys, was designed for these models. I wonder whether anyone has seen one.



Road Tests of 1939 Models

RILEY "SPRITE" TOURING SALOON

A Fast and Attractive Drop-head—Capable of High Cruising Speeds—Exceptionally Roomy Body and Luxurious Equipment



(Above and right) The Riley Touring Saloon strikes a new note in British convertible bodywork. The car shown was attractively finished in black and chromium with beige upholstery.

(Below) A front view showing the neat wing-fenders and twin horns matching the radiator grille.

SEEKERS after performance will certainly be pleased with the new 1½-litre Riley Touring Saloon with the " Sprite " engine. As Lord Nuffield said to the executives of the Riley company: "The Riley car has been in the past a British thoroughbred, try and make it even more so." The makers have followed this advice and the least we can say about the new car is that it is, first and foremost, a Riley.

The new touring saloon body is, in reality, an exceptionally well-designed drop-head foursome coupe providing all the comfort, room and protection of a saloon with the added attraction of being converted easily and quickly

into an open car.

The designers have carefully considered the rear passengers. Although the car has been produced primarily as a full four-seater, we found that three persons could be accommodated with ease on the rear seat with the centre folding armrest out of the way. Interior illumination is unusually good for this type of body and the rear occupants are not boxed up in a dark compartment as sometimes happens. The Riley touring saloon closely approaches the ideal drop-head coupe.

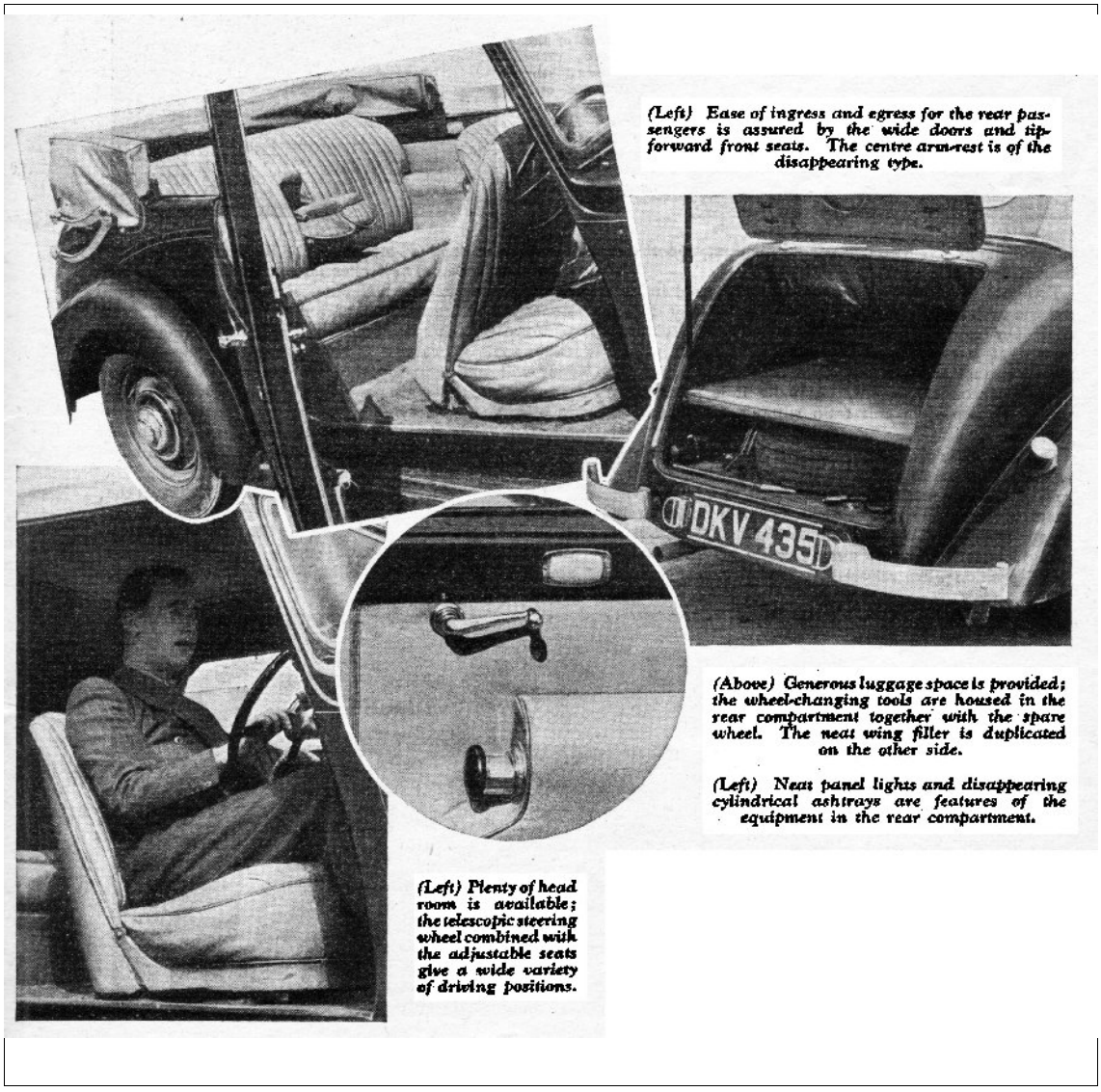
Generally speaking, the interior dimensions are very generous for a car rated at only 12 h.p. Fully 46½ ins. is available as elbow room in the rear whilst in front the occupants have 44 ins. With the front seats right back, knee room in the rear is approximately 12 ins.

Headroom, too, is particularly satisfactory; as a matter of interest we persuaded a 6-ft. man wearing a bowler hat to try the seating position—at no time did his headgear touch the roof. A tape measure showed that there is 3 ft. available between the roof and the seats.

Illumination at night in the rear compartment, always a problem for drop-head designers, has been cleverly overcome by side panel lights on the fillets above the side arm rest. On each rest there is a cylindrical disappearing ash-tray.

Seating is very restful and is reminiscent of certain luxury cars in the £1,000 class. Upholstery is tastefully carried out in soft leather and the carpets are of heavy pile. Raising or lowering the head requires no skill nor any effort. It is necessary only to release the two holding-down bolts on the top of the windscreen, " break " the landau irons and there you are! The hood, when folded down, is neatly encased in a fabric envelope. All four windows are frameless and of the wind-up variety. The forward portion, however, is fixed and is chromium edged.

Equipment is lavish and the whole finish of the car reveals high-class workmanship. All fillets in the interior are of polished walnut as is the facia panel under which is a wide parcel tray. The telescopic, spring-spoked steering wheel carries the horn button and traffic indicator switches. Incidentally we believe that the effectiveness of the indicators would be improved considerably by transferring their position from the side of the scuttle to a place behind the doors. As it is they are not readily visible to following traffic. The wings are of generous size and are in harmony with the remainder of the coachwork. Twin petrol fillers that protrude through the rear wings will be appreciated by garage attendants as well as the owner.



(Left) Ease of ingress and egress for the rear passengers is assured by the wide doors and tip-forward front seats. The centre arm-rest is of the disappearing type.

(Above) Generous luggage space is provided; the wheel-changing tools are housed in the rear compartment together with the spare wheel. The neat wing filler is duplicated on the other side.

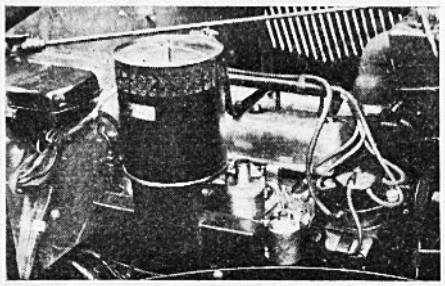
(Left) Neat panel lights and disappearing cylindrical ashtrays are features of the equipment in the rear compartment.

(Left) Plenty of head room is available; the telescopic steering wheel combined with the adjustable seats give a wide variety of driving positions.

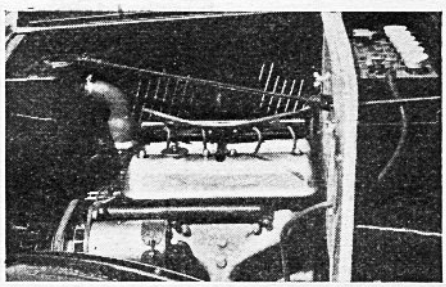
The " Sprite-series " engine has a specially designed induction system incorporating two S.U. Carburetters. A higher compression is used compared with the standard Riley engine and a marked increase in power is noticeable. The unit is flexibly mounted and it can be rocked by hand. A high degree of smoothness results, with a conspicuous absence of vibration. Other differences from the standard power-unit are the provision of a vertical magneto in place of the coil and the use of special-type pistons.

High cruising speeds were the rule rather than the exception; 70 m.p.h. was held on the speedometer indefinitely whenever road conditions permitted. Maximum speed was found to be 78 m.p.h. The power-unit was silent, but the same cannot be said of the exhaust note which had rather a "sports" sound and was apt to bring the car to the notice of onlookers. However, we understand that this has received the attention of Riley engineers and that future " Sprites " will emit a much more subdued exhaust note. The engine on the car tested had covered only a few

hundred miles and was not so free as it might have been, so that speeds of over 80 m.p.h. should be possible when fully run-in.



Two views of the power unit showing (left) disposition of the magneto, carburetters, air-silencer, cut-out, fuse-box and so on. (Right) The 12-volt battery is accessibly mounted in the insulated bulkhead.



The new synchromesh gearbox with its centrally placed remote control lever, permits of rapid changes allowing full use to be made of the fine acceleration of the car. Actually only 22.3 secs. were necessary for the standing quarter mile. The Borg and Beck clutch was light and smooth although inclined, on the car tested, to spin a trifle when making rapid gear-changes.

Road-holding and suspension were superb; it was virtually impossible under ordinary conditions to cause tyre squeal and it was obvious to us that many years of racing experience have been embodied in this Riley chassis. Corners were taken as fast as one dared and no body-swaying occurred. The weight distribution is so good that wet roads were treated as if they were dry.

Although the engine was not prone to pinking on high-grade fuels it was desirable to make full use of the gears for the sake of performance rather than experiment with top-gear flexibility, with consequent manipulation of the manual ignition control.

Top-gear performance, however, is very good indeed and the majority of hills were treated as if they didn't exist. On the other hand it was extremely satisfying to know that a swift downward change to third would always extract us from any tight corner when passing another car on a gradient. Actually it is possible to exceed 60 m.p.h. in this ratio without causing valve bounce.

The writer has always in mind Mr. Mantell's warnings regarding unnecessary use of the choke when starting from cold, consequently he was pleased to find that the choke on the Riley could be dispensed with immediately the engine fired. To avoid running with it "on," it is spring loaded so that it automatically returns to the " off " position when released.

A noticeable feature of the power-unit was the complete absence of oil-leaks. At the conclusion of our test the engine was as clean as when we started out. In over 300 miles of really hard driving, including tests at Brooklands, not a single drop of water was added to the radiator (or needed) nor was any oil required in the sump.

The Riley can be driven equally fast at night; for the head lamps give a powerful beam and the near-side one, when dipped, provides a useful view of the side of the road. The dip switch is foot controlled and is placed sufficiently far away from the clutch pedal to permit ample space for the driver's foot to rest between them. The large, easily read instruments on the facia panel are illuminated by translucent lighting which does not interfere with the driver's eyes in the least.

A commendable feature of the new Rileys is their commodious luggage lockers, fully 10 cubic ft. of space being available. The locker lid on the downswept tail lifts upwards and is held in position by a stout stay. Beneath the luggage compartment there is a separate platform for the spare wheel and wheel changing tools. Other tools are carried in compartments in the scuttle.

It will suffice to say that the brakes are of Girling manufacture; they are powerful yet progressively smooth in operation. Very light toe pressure is necessary to effect a quick stop. The horizontal pistol-type hand brake protrudes from under the facia panel and will hold the car on a steep gradient.

It was with profound regret that we finally returned the car and we can only conclude by saying that, in our opinion, this latest Riley is a worthy descendant of a long line of fine productions; it will surely find a ready market amongst the connoisseurs of high-performance light cars.

IN BRIEF.

ENGINE: Four cylinders; o.h. (push-rod) valves; 69 mm. by 100 m.m. = 1,496 c.c. Tax, £9.

TRANSMISSION: Dry single-plate clutch; four-speed gearbox with synchromesh for second, third and top gears. Ratios, 4.88, 7.25, 11.2 and 19.4 to 1; reverse, 19.4 to 1. Final drive by divided propeller shaft (rear portion enclosed in torque tube) to spiral bevel rear axle.

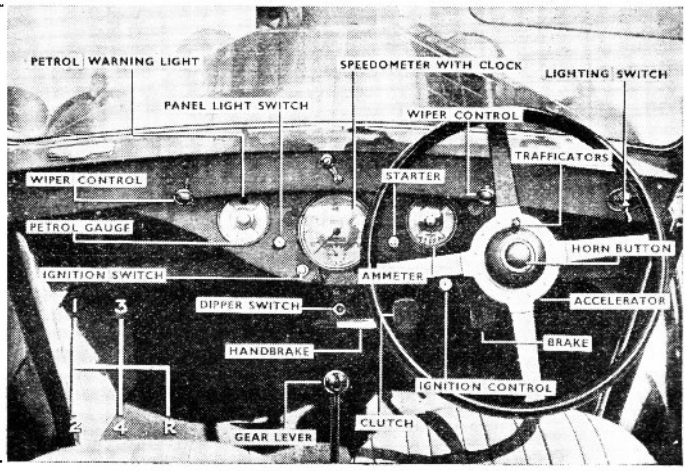
GENERAL: Girling mechanical brakes; semi-elliptic springs front and rear; 10-gallon rear petrol tank; 12-volt electrical equipment with c.v.c.

DIMENSIONS: Overall length, 14 ft. 3 ins.; overall width, 5 ft. 3 ins.; height (top erected), 5 ft. 4 ins.; wheelbase, 9 ft.; width, 5 ft. 3 ins.; track (front), 4 ft., (rear), 4 ft. 3¼ ins.; interior dimensions, see text; ground clearance, 6¼ ins.; weight, 23¼ cwt.

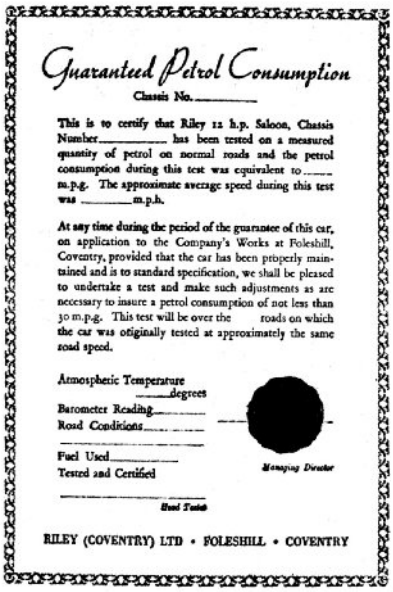
PERFORMANCE: Flying ½-mile (best) 78.2 m.p.h.; (mean) 76.00 m.p.h.; standing ¼-mile, 22.3 secs. Petrol consumption, 22-25 m.p.g. Braking (by Ferodo-Tapley meter) from 30 m.p.h., 95 per cent.

PRICE: £360.

RILEY (COVENTRY), LTD., Coventry.



RILEYS GUARANTEE M.P.G.



Guaranteed Petrol Consumption

Chassis No. _____

This is to certify that Riley 12 h.p. Saloon, Chassis Number _____ has been tested on a measured quantity of petrol on normal roads and the petrol consumption during this test was equivalent to _____ m.p.g. The approximate average speed during this test was _____ m.p.h.

At any time during the period of the guarantee of this car, on application to the Company's Works at Foleshill, Coventry, provided that the car has been properly maintained and is to standard specification, we shall be pleased to undertake a test and make such adjustments as are necessary to insure a petrol consumption of not less than 30 m.p.g. This test will be over the roads on which the car was originally tested at approximately the same road speed.

Atmospheric Temperature _____degrees

Barometer Reading _____

Road Conditions _____

Fuel Used _____

Tested and Certified _____

Managing Director

Road Tester

RILEY (COVENTRY) LTD • FOLESHILL • COVENTRY

Facsimile of petrol consumption guarantee that will be issued with every Riley 12 h.p. Single-carburetter model.

New Scheme to Apply to 12 h.p. Single-carburetter Models

IN future every 12 h.p. Riley saloon of the single-carburetter type will be sold with a certificate stating what its fuel consumption is at a certain average speed; moreover, during the ordinary guarantee period, an owner can have his car retested and, if necessary, adjusted so that its consumption will not be less than 30 m.p.g. This is the minimum figure which will be passed as satisfactory before each new car leaves the works.

To see just what this certificate means our representative visited the Riley factory at Coventry and accompanied a car through its tests. As things happened the particular car which was next in line for this job had been tested earlier in the day and its fuel consumption then was at the rate of 30.8 m.p.g. As a result of the tester's report, it had been thought necessary to make various adjustments to this car and therefore it had to be retested.

Method of Testing.

Road tests of Rileys, as of some other makes, are conducted without a bonnet and without such things as carpets. In other respects the car was complete, of course. Before we left the works, a small tank was hitched on to one of the radiator stays, but it was not then connected to the carburetter. For the first few miles of the test, the fuel was sup-plied from the regular tank in the usual way.

When some six miles had been covered and the engine was moderately warm, the main tank was disconnected, the float chamber was emptied and a quart of petrol was measured carefully into the small tank which was connected to the carburetter by a flexible pipe.

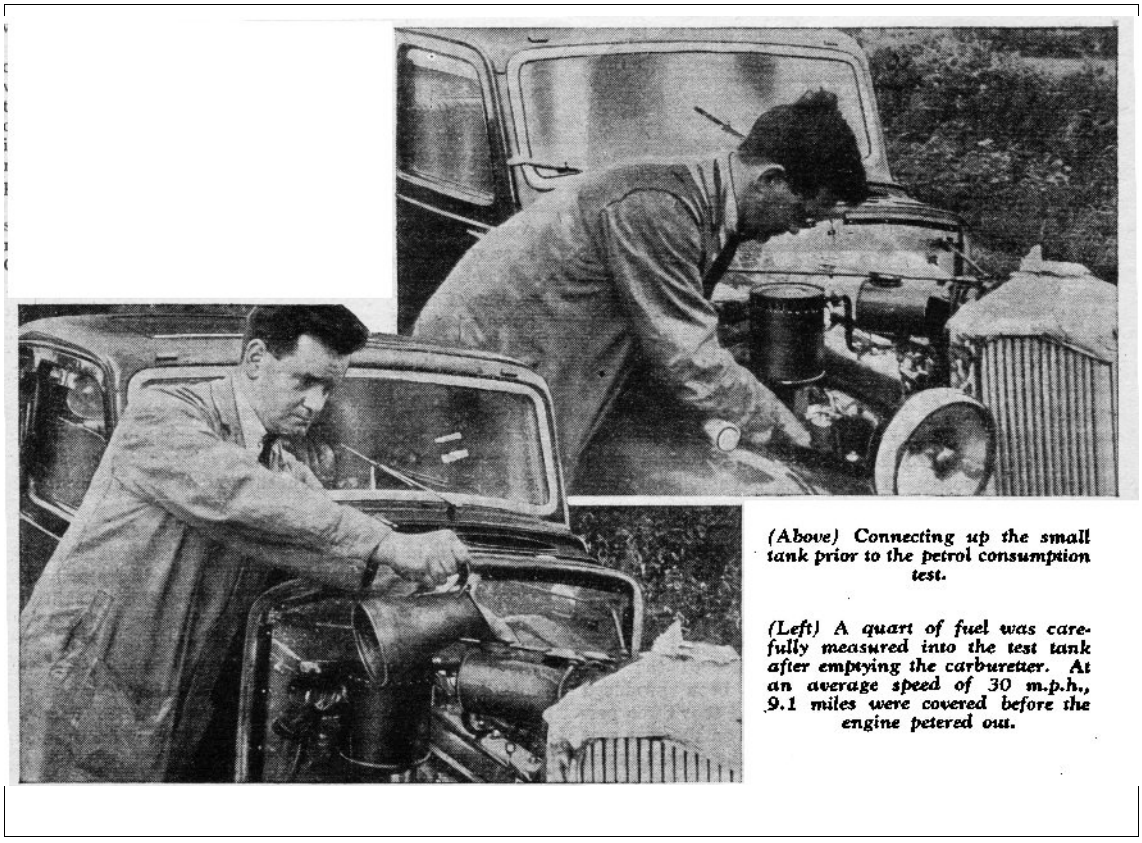
Then the car, with driver and a passenger in this case, was driven at 30-35 m.p.h. over a triangular course near Coventry. This included three sharp corners and a halt sign. That the adjustments had been thoroughly beneficial was shown by the fact that this Riley covered 9.1 miles on its quart of petrol, giving a consumption of 36.4 m.p.g., which is certainly good for a roomy 12 h.p. car weighing about 24 cwt.

Effect of Higher Speeds.

This was at an average speed of about 30 m.p.h. Although they are

not directly concerned with this guarantee scheme, figures showing the effect of speed on consumption are not without interest. These showed that a slightly better result was obtained at 40 m.p.h. than at 30 m.p.h., and that there was a drop of only 12 per cent. when the speed was increased from 30 m.p.h. to 60 m.p.h.

Every car of this type carries with it a petrol consumption guarantee certificate as shown in the accompanying facsimile. It is signed by the managing director and by the head tester. A guarantee of at least 30 m.p.g. for a car which is capable of carrying four people comfortably at 70 m.p.h. is something of which the Riley company can reasonably be proud.



(Above) Connecting up the small tank prior to the petrol consumption test.

(Left) A quart of fuel was carefully measured into the test tank after emptying the carburetter. At an average speed of 30 m.p.h., 9.1 miles were covered before the engine petered out.

This issue of The Light Car contained a double page Riley advertisement:

RILEY POLICY

The Programme announced below will be in operation at the Earl's Court Motor Exhibition in October, 1939, and will continue for the Season.

You can therefore buy your new Riley TO-DAY with the firm knowledge that you will obtain maximum length of service with minimum depreciation.

INNOVATION

Every 12 h.p. Riley, excluding Sprite models, is individually tested on a measured quantity of fuel on normal roads and there is a signed certificate attached guaranteeing that a petrol consumption of not less than 30 m.p.g. has been obtained.

This certificate remains valid during the guarantee period of the car.

12 H.P. SALOON £310

(Sprite engines £25 extra)
Prices ex works: Dunlop Tyres and Triplex Glass Standard

12 H.P. DROP-HEAD TOURING SALOON £335

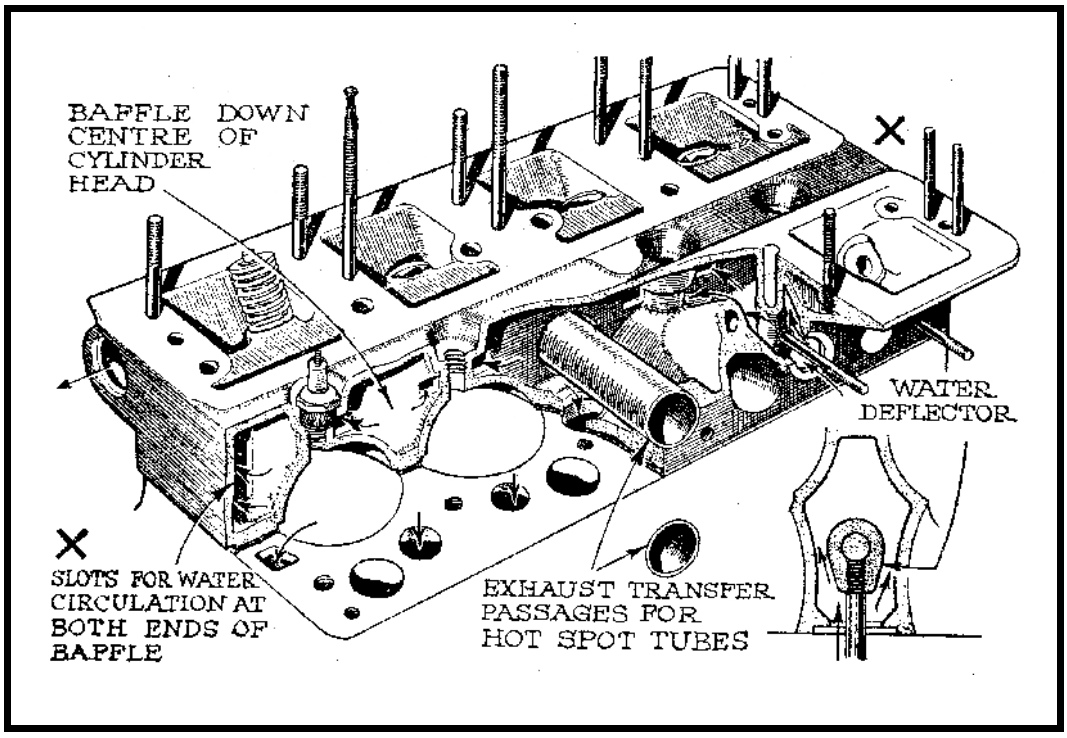
(Sprite engines £25 extra)
Prices ex works: Dunlop Tyres and Triplex Glass Standard

RILEY (COVENTRY) LTD., COVENTRY
London Showrooms: "Riley Cars", 55-56 Pall Mall, S.W.1. Telephone: Abbey 7311.

Sole Exporters: M.I.E. Ltd., Cowley, Oxford, England.

AS OLD AS THE INDUSTRY . . . . AS MODERN AS THE HOUR

In the same week in 1939, *The Motor* published a extensive review of the new Riley Sixteen and Twelve models, though no road test. Included in *The Motor* article were a number of drawings of features including this one of water flow through the head. This in general applies to all subsequent Riley-engined models.



Wheels: Robin Hull

Not being content to suffer driving my 2½ Riley an cross-ply tires, I looked at what I could replace them with. In radial-ply tires, I have seen a considerable range of sizes including the following on similar Rileys—

175/80-16

185/75-16

195/75-16

215/70-16

235/75-15

205/80-16

Some of these tyres have been fitted on the original rims which could have the following adverse considerations:

1. The original rims are not safety rims
2. The rims are riveted onto the centres which may allow leakage with tubeless tyres
3. The width of the rims is not in accordance with the Tyre and Rim Association guidelines for the larger section tyres.

I decided to use 205 R16 tyres which are readily available as they are fitted to a range of modern vehicles and are satisfactory on 6 inch rims. The rims are from Nissan Navaras and were removed from the original centres by grinding off the welds. Three of the rims were only stitch welded but one was fully welded and took quite a bit of work to remove. One reason to use the Navara rims is that they are only a few thou larger than Riley centres and a bit of shim at four points was all that was required to centre them for welding.

The point of most contention seems to be the amount of offset required. I have assembled mine so that the centre of the rim is an inch and a quarter inboard of the mounting face of the wheel and this seems to be satisfactory. One disadvantage is that these tyre rim combinations will not fit in the spare wheel compartment of the 2½. My solution is to fit a standard Riley wheel with a 175/80-16 tyre which will fit. With modern steel belted radial ply tyres the incidence of punctures is quite low and I hope never to have to fit the spare. If I do have to, I consider it will be a lot better than the modern concept of an emergency spare wheel which is generally rated to a maximum of 80 km/h for a maximum of 80 kilometres distance.

From Queensland Transport, All about modifications to motor vehicles, 2008:

Alternative rims and tyres

Many vehicle owners like to replace the vehicle's original rims and tyres with alternatives of different width, diameter and profile.

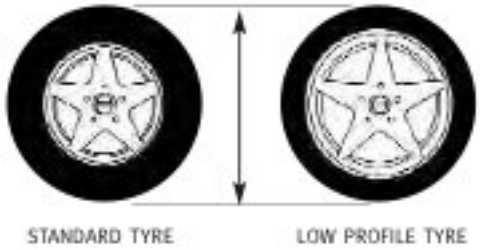
The following sub-sections outline the legal requirements for replacement rims and tyres fitted to a passenger car or derivative, or an off-road passenger car (but not light commercial), which will ensure your vehicle continues to comply with Queensland legislation while allowing for your individual preferences.

Low profile tyres

It is common practice for manufacturers to fit low profile tyres to high performance motor vehicles as standard equipment.

Low profile tyres (e.g. 50 series), replacing standard profile tyres (e.g. 70 series or above), are normally fitted in combination with rims of larger than standard diameter to maintain the correct overall diameter of the wheel.

A diagram of this concept appears below.



The rim diameter may be varied from the standard size but the overall diameter of the tyre must not vary by more than +15mm or -26mm.

These limits have been set for a number of reasons. Varying the overall diameter of tyres affects ground clearance, centre of gravity, brake effectiveness, steering geometry, performance and speedometer accuracy.

Generally, to meet these limits, 60 series tyres are fitted to rims with a diameter 26mm larger than standard and 50 series tyres are fitted to rims with a diameter 50mm larger than standard.

General conditions for alternative rims and tyres

The rims and tyres must not protrude beyond the bodywork of the vehicle, including flares, when viewed from above with the wheels facing straight ahead. If the vehicle was originally constructed with a portion of the wheel protruding, the wheels must not protrude further than originally constructed.

The tyre to rim fitting and the tyre to rim combination must be in accordance with the Tyre and Rim Standards Manual published by the Tyre and Rim Association of Australia. Reputable tyre retailers should have this information and be able to advise on the correct combinations.

All rims fitted to an axle must be of the same diameter, width and offset. They must not have a circumferential weld other than that which attaches the outer rim to the centre. All rims must have stud hole pitch circle diameters suitable to the hub. Wheel nut tapers must be appropriate to the wheel and must engage the thread of the wheel studs for at least the same length as the nuts provided by the vehicle manufacturer.

Slotted and elongated stud holes are not permitted.

The fitting of spacers or adaptors between wheels and hubs, additional to those provided by the vehicle manufacturer, is not permitted. The tyre and rim must not foul wheel arches or suspension components under any conditions. Steering limit stops must not be adjusted to reduce the turning circle in order to allow the fitting of the alternative rims and tyres.

The tyres must have a tread depth of at least 1.5mm on every part of the tyre that touches the road and not have any apparent defect that is likely to make the vehicle to which they are fitted unsafe. It is not permitted to fit tyres that have been treated by recutting or regrooving unless the tyre has been marked by the original manufacturer as 'suitable for recutting or regrooving'.

Tyres

The maximum tyre width for a car or car derivative must not be more than 1.3 times the vehicle manufacturer's widest optional tyre.

However, for an off-road passenger vehicle fitted with front and rear beam axles, the maximum tyre width must not be more than 1.5 times the vehicle manufacturer's widest optional tyre.

The nominal width of the narrowest tyre fitted to a vehicle must not be less than 70 per cent of the nominal width of the largest tyre fitted and never less than the vehicle manufacturer's narrowest optional tyre as indicated on the manufacturer's tyre placard.

Speed and load ratings

The speed rating of all tyres must be:

•a speed of at least:

- for an off-road passenger vehicle – 140km/h
- for another car (sedan, station wagon etc.) up to nine adult seating positions or a car derivative – 180km/h
- for another motor vehicle – 120km/h

•the vehicle's top speed, if lower.

Load ratings of tyres must be at least equal to those specified by the manufacturer on the tyre placard fitted to vehicles made after 1972. For other vehicles, the load rating of a tyre must be capable of carrying the part of the vehicle's gross mass carried by the tyre.

Tyre construction

Tyre tread compounds, patterns, ply ratings and performance characteristics vary. Tyre construction (e.g. radial) and size must be the same on the same axle. Although it is recommended that the tyres are identical (e.g. same brand and tread pattern), this is not mandatory.

Vehicle track

Track is measured at ground level from the centre of the tyre on one side to the centre of the corresponding tyre on the opposite side of the vehicle. Front and rear track differs on many vehicles.

The wheel track must not be reduced to less than the standard track specified by the vehicle manufacturer for the particular model of vehicle.

The track of a car or car derivative may be increased by up to 26mm beyond the

maximum specified by the vehicle manufacturer for the particular model of vehicle. Off-road passenger vehicles fitted with front and rear beam axles, may have an increase in track up to 50mm beyond the maximum specified by the vehicle manufacturer for the particular model of vehicle.

Information Service:

Riley Sump

I am having some difficulty in removing the engine sump on my 1946 1½-litre Riley. I find that I cannot remove the bolts securing the rear end of the sump as a chassis cross-member is in the way. Can you advise me with regard to this please?

THE difficulty you mention can be quite easily overcome by raising the rear end of the engine unit slightly. The procedure is as follows :
First remove one of the pins from the small universal joint on the clutch extension cross-shaft so that this joint is uncoupled. Next place a jack under the body of the gearbox and disconnect the engine tensioning cable by removing the nut securing the rear end of cable to chassis cross-member. The four bolts of the gearbox rear mounting should now be taken out; you will find two of these on either side, and then by jacking up the gearbox and engine together you will be able to obtain enough clearance in order to remove the bolts securing the rear end of the sump.

Post-war Distributors

Perhaps you would be good enough to enlighten me in connection with the various forms of distributor cams which have been produced since the war, and the corresponding contact breaker points gap. In service stations one hears reference to " high lift " cams, etc., and to normal and initial settings, some of which differ and some of which are the same. Any comments you care to make would be of interest to me.

THERE are in all five types of cam to be considered, of three different forms. In the four-cylinder range there is the " symmetric ", the " asymmetric " and the " high lift " type, whereas in the six-cylinder range only the " symmetric " and " high lift " type are found.
Before the war it was usual to find the symmetrical cam fitted, but in order to improve the performance of the ignition system and to increase contact point life the manufacturers developed the " asymmetric " cam.
The latest type of distributors now have the " high lift " cam fitted.
The " initial " settings are used during the first 500 miles, and when the initial bedding in of the contact breaker heel has taken place the points should be readjusted to the dimensions given for normal service. With the exception of the latest type of " high lift " cam the normal service contact breaker point gap should be between .010 in. and .012 in., the initial

setting having been .014 in to .016 in.
In the case of the " high lift " cam both the initial and normal setting should be .014 to .016 in., but care should be taken to ensure that after the initial bedding in (i.e. at 500 miles) the points are readjusted.
The first improved form on the four-cylinder engines (the asymmetric) caused the points to open quickly and close slowly, thus giving a greater degree of quietness in operation.
With the latest design of " high lift " cam (fitted to both four- and six-cylinder distributors), the face of which has a steep angle, more accurate ignition timing has been achieved, together with better control of contact piling and pitting action. A certain amount of such action is desirable, as it ensures that the slight sparking necessary to keep the contacts clean is operating.
On reflection it will be easily seen that points which open slowly to a small maximum gap are more prone to the fault of pitting action. The quick-opening cam allows the points to remain closed for a longer period (with consequent increase in time for the primary current to build up—a very desirable thing), and due to the rapidity with which they open, the piling and pitting action is reduced, giving contacts greater life.
Inevitably a very slight increase in operational noise is to be suffered, but need cause no concern as it will not be audible in the majority of cases.
In conclusion it must be said that greater care must be taken when setting the points in use with a " high lift " cam, to ensure that the fibre heel is on the highest point of the cam rise.

Riley 1½ litre Timing Chain

I recently overhauled my 1½ litre Riley engine, and since then a high-pitched noise has become evident from the front of the engine. Thinking that the noise emanated either from the dynamo or water pump, I disconnected the fan belt to eliminate these units, but the noise still persists. I have already determined that the overhead-valve gear is adequately lubricated, and that the engine oil pressure is as recommended in the instruction manual. Therefore I would welcome any suggestions you may care to make which will enable me to overcome this complaint.

FROM the details you give, it would appear that the timing chain has been incorrectly adjusted, and is in fact too tight. It is suggested, therefore, that you remove the knurled phosphor-bronze cap which is fitted on the off side of the timing cover, and the removal of this cap will reveal a Simmonds self-locking nut, at the back of which the end of the serrated timing chain adjuster may be seen.
The locknut should be slackened off, and the adjuster should then be turned by means of a special"C" spanner (Part No. ST60) in an anti-clockwise direction until a definite resistance is felt, and then slackened back very slightly and locked in that position by means of the locknut.
The cover should then be replaced.

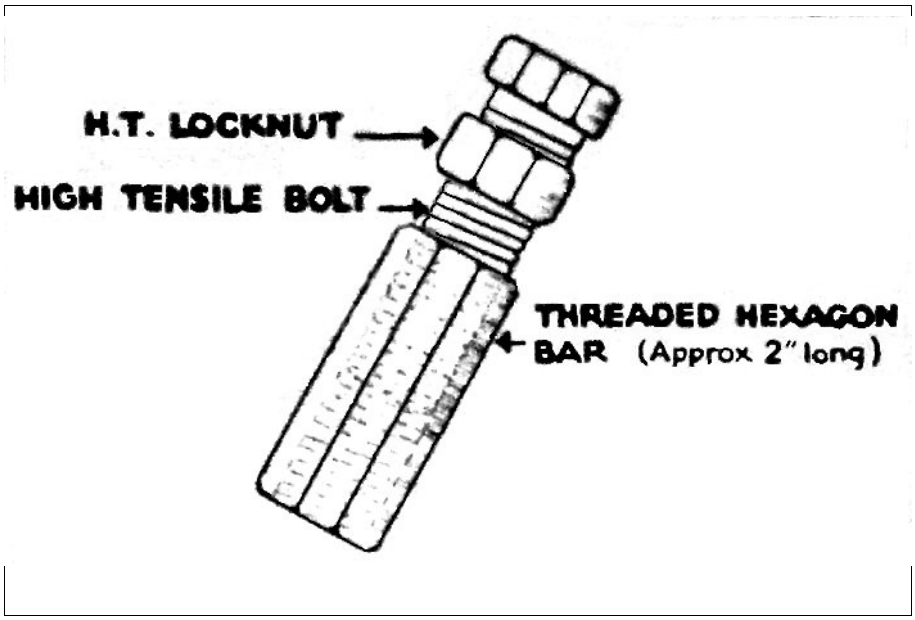
And here is a useful tool for those who wish to preserve and re-use studs that may otherwise be damaged by cam-type knurling stud removers. It comes from *Modern Motor*, July 1956:

HANDY STUD TOOL

WHEN decarbonising an engine, all cylinder-head studs should be removed so that a clean surface on the top of the block can be obtained to obviate any chance of air leaks after the gasket has been fitted.

Many people use two nuts, locked against each other, to remove the studs, but often without success. A studbox as described here makes removal and insertion of studs easy.

If, for instance, the studs to be removed are ½ in. B.S.F. thread, a piece of hexagon bar, 3in. long, should be drilled and tapped ½ in. B.S.F. A high-tensile bolt and nut should be screwed in about half-way. The hexagon bar is then screwed down over the stud. and the bolt tightened down until it touches the top of the stud. The nut is then locked down tightly. Now a spanner on the hexagon bar will drive in or remove the most stubborn stud.



It's a good idea to have a set of these stud boxes made up in sizes to suit your car—head and manifold studs are the most common requiring removal. (A. E. Hodges, Malvern, Vic.)

Your Invitation to join the Riley Motor Club of the ACT For the

National Rattle of Rileys

The 2010 National Rattle of Rileys will be based in Queanbeyan NSW, just 10km from Parliament House, Canberra.

The first thing you may have noticed from the dates on the front, is that this is not an Easter event.

The ACT 'Rally' Committee made the decision to bring the date forward by 2 weeks in the hope that it will be more cost effective and safer for interstate visitors, than it would have been over the Easter period.

We trust this will not deter you from attending.

Accommodation in Queanbeyan offers a broad spectrum of choice from Riverside caravan & camping, to four-star motels.

From Welcome dinner on Friday, to the Farewell dinner on Sunday, your evening meals will all be at the same venue, so you will not have to find a new location each evening.

We look forward to meeting up with you in Queanbeyan, to renew old friendships, and have a relaxed, minimal driving experience, once you arrive.

Riley for Magnificent Motoring

Expression of Interest

Would you like to be included on the mailing list for next year's event? If so, please send your contact details to the Entries Secretary. You will then be sent an entry form in due course.

Mail your name and address to—

Frank Airey, 32 Gallaghan Circuit, Gowrie ACT 2904

or email to franka@pcug.org.au

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