



Alvic

AUGUST 2005

Following an Alvis Outing on 24 July in South Australia, the FWD of Don & Jill Bosanquet, TD21 of John & Roma Mitchell, John Murray's TA14, TA21 of Roly & Helen Forss, 12/70 of Bob & Marion Eglinton, Vic Elliot's 12/50 Ducksback, TA21 of Fred & Betty Jones, SP20 of Duncan & Clova Scott and the 12/50 of Stuart & Claire Mac Donald, outside the clubrooms of the Sporting Car Club of South Australia

The Alvis Car Club of Victoria (Inc)

A0017202F

CLUB ROOMS: - rear of 'ALVISTA' 21 Edgar St, Glen Iris (MELWAYS 59 F8)
Meetings—third Friday of each month [except DEC/JAN] at 8.00pm. Newsletter Deadline—first Friday of month.
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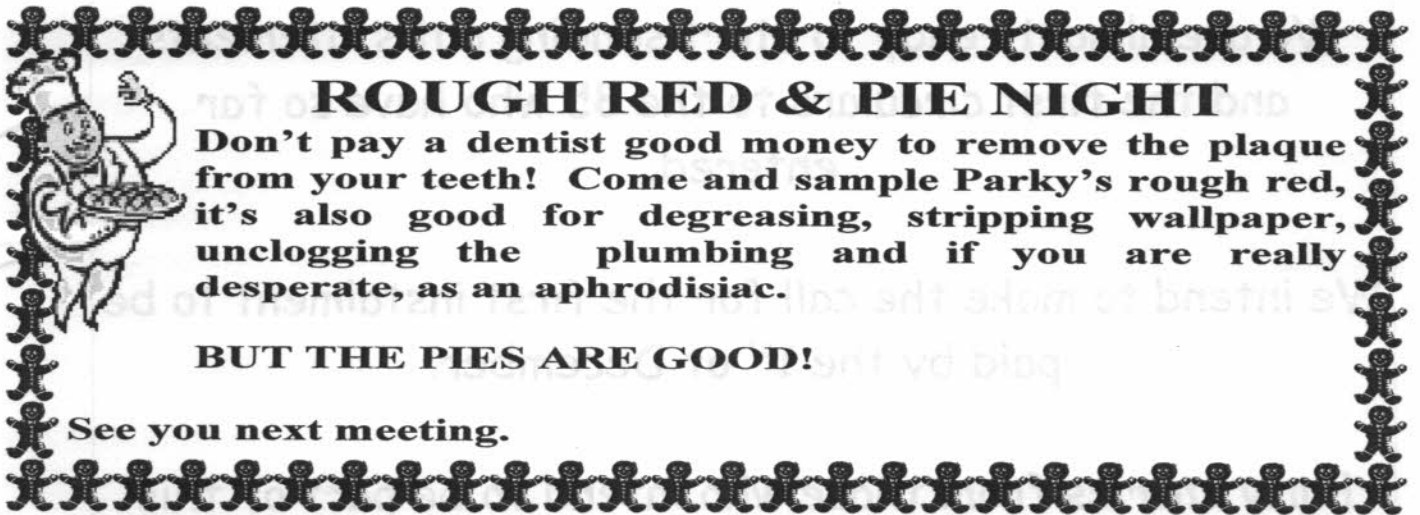
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ALVIVACIOUS

Last year I wrote in this column about the stupidity of motor manufacturers who supply "space saver" spare wheels in motor cars they expect to travel the length and breadth of Australia. A spare wheel with a recommended top speed of 80 km and a recommended maximum range of 80 km is not much use when you have a flat tyre 100 km from the next town. And once you are away from the cosy metropolitan areas distances far in excess of 80 km are common. Some manufacturers do not supply any sort of spare wheel; merely an aerosol can of "sealant". Try fixing up a torn sidewall with that! Mention of sidewalls brings me to another new tyre problem besetting Australian motorists. Four years ago we bought a Subaru "Outback". (The irony of the name will be obvious later.) We found it to be a great touring car and had no qualms in replacing it with the newer model a year ago, especially as we intended to travel extensively in Western Australia, using sealed and unsealed roads but avoiding unmade roads and tracks. A problem for tyres in, for instance the Hammersley Ranges, is that many of the roads are well graded but unsealed and strewn with very sharp-edged stones. These stones tend to be flung backwards from the front wheels to collide with the side walls of the rear tyres. This results in "some loss of air"! It is more likely to happen if the rear tyres are of low profile. Replacing a destroyed tyre can be difficult in remote areas but your chances are best if you need a common size. The commonest size wheel used in remote Australia has a diameter of 16 inches so one has to wonder why Subaru, on its latest model, chose to change the wheel size from 16 to 17 inches and fit low profile tyres – and still call the machine an "Outback". A particularly annoying point is that 16 inch wheels fit the car perfectly and the tyre and wheel combination has a circumference exactly the same as the 17 inch! So why was the change made? Fortunately we did not sustain tyre damage but fear of doing so did limit our chosen routes. Seventeen inch tyres are so difficult to obtain that upon our return to Shepparton with worn tyres I could find none and a couple of large suppliers were unable to find a set of four in Victoria. God knows how long we would have had to wait at Meekatharra! So where to from here? Buy a set of 16 inch wheels? At what cost? Will my insurance company approve the change? Buy a new set of 17 inch tyres and refrain from taking my "Outback" into the outback? Sell the car and buy another more suitably equipped car? At what cost? And you thought that tyre availability was a problem for our funny old cars.....!

JOHN HETHERINGTON.



ROUGH RED & PIE NIGHT

Don't pay a dentist good money to remove the plaque from your teeth! Come and sample Parky's rough red, it's also good for degreasing, stripping wallpaper, unclogging the plumbing and if you are really desperate, as an aphrodisiac.

BUT THE PIES ARE GOOD!

See you next meeting.

EVENT CALENDAR

Aug 19	General Meeting— Rough Red & Pie night
Sep 3 & 4	VSCC 60th Anniversary 2 Day Rally
Sep 16	General Meeting
Oct 1—2	Ensay run. Commemorates the first car journey from Bairnsdale to Ensay. ACCV have intimated that 6 cars will attend. <i>Contact John Hetherington for details</i>
Oct 16	Combined Pub Run with the Bentley Club (Full details September newsletter)
Oct 22 & 23	Mt Tarrengower
Oct 21	General Meeting
Oct 29-31	Camperdown
Nov 12 & 13	VSCC 60th Anniversary
Nov 18	General Meeting
Dec 4	Christmas Party at the Langs (please note the change of date)

Earlier this week, the death of Peter Menere was reported in *The Age*. Peter was perhaps an Alvis agent after the war. He was certainly and accredited service agent for Alvis cars in the fifties and sixties, having his headquarters in St Kilda St, Brighton, where I took my first Alvis. Meneres are now a BMW agent.

Peter had a 3½ litre saloon that Barry Hann purchased, chopped the top off and made it into a 2 door tourer. This is the car that Andre Chaleyer has now.

Rob Graham

A very warm welcome to Robert Peel who recently joined the ACCV having purchased the ex Robert Purves TA21. Robert & Sheila are resident in Sydney, but are not adverse to participating in interstate events. We look forward to seeing you both at future events.

Alvis in the Outback 2007. South Australia.

A reminder.....

We are almost ready to start sending out statements and the first circulars to the 35 who have so far entered.

We intend to make the call for the first instalment to be paid by the 1st of December.

Early entries from those who intend to be part of this great event will help the organisers immensely. Please enter ASAP!

More entry forms are available from your club or from the Duncan Scott' phone 0883384129 or dcscott@optusnet.com.au.

ALVIS-ING AROUND

A long overdue week off for me was recently spent with Sally and Chester McKaige on a trip to Sydney exhibiting an Alvis flavour. For Sal and Chester this was a visit to see people they already knew, whilst enabling me to meet Alvis enthusiasts based there. For those who haven't ventured that way of late, Sydney is an easy day's run now compared to the old road many of us remember. Aided by the system of tunnels these days under the harbour, Newport Beach (where we stayed, about 45 mins north of Sydney) was easily reached within 11 hours of starting, and this with a relaxed lunch break and couple of other stops. Next day, Monday 20 June, we visited Brian and Joan Hemmings at Westley, not far from where we were staying. We enjoyed a sumptuous lunch and very pleasant afternoon. Good to see that Brian is recovering and his attitude is terrific. Also good that he and Joan now have a TA21 drophead and are looking forward to having fun with it in the future. Brian asked us to mention that they have an Amilcar for sale on which just about everything has been done, a pretty little machine from the photos we saw. Anyone interested, contact Brian.

Tuesday found us at the Ingleside home of Rob and Denise Blackett. A look at the impressive array in their shed - 12/50, 12/70 special, and Front Wheel Drive. The FWD currently has the engine out being attended to, and some work was in progress on the 12/50 rear end. The Blackett's suggested a run in the 12/70 special - I was fortunate enough to have first turn in the passenger's seat while Denise, Chester, and Sal followed in the modern up around the roads of Kuringai Chase. Gee that special doesn't half go! And Rob drove it superbly. A stop to admire the wonderful view from the lookout at West Head, very picturesque looking out over Pittwater, The Spit, Barrenjoey Head and the ocean. Chester's turn for the passenger seat and the 12/70 was gone in two ups whilst we trundled along in the modern. After an exhilarating trip, another sumptuous lunch at Rob and Denise's and pleasant afternoon.

Finally, it was good to catch up on the Wednesday with Fred and Colleen Heming (ex 12/50 and 4.3 owners), David Macdonald (Speed 25 owner) and Ian Kenny (who we have known for many years, Bentley and Bugatti man). Lunch was enjoyed at the Blowfish Café at Narrabeen, whilst the finer points of Alvises and various other cars were discussed.

Incidentally, Andrew and Frances McDougall had recommended that during our stay we try an Indian restaurant called *Bhaji On The Beach* at Newport Beach. Trust their food advice implicitly. It was excellent. One of the better Indian meals I have sampled anywhere.

Heading back to Melbourne we reflected on how much we had enjoyed seeing everybody and the change of scene as well. Thankyou to all up north if they read this and whose company we enjoyed, and especially to the Hemmings and the Blacketts for the sumptuous lunches they so kindly provided. Look forward to seeing you all again!

Warrick Hansted.



Above: Bob Blackett's 12/70 Special
Above left: Bob's FWD under restoration

Left: David Macdonald, Fred & Colleen Heming & Sally McKaige

An Alvis Outing.

It doesn't happen very often! We decided that it was well past time for another "ALVIS OUTING" in South Australia.

The 24th of July was set as the day, Jill and Don Bosanquet set a very pleasant touring route through the Adelaide Hills. We met for morning tea and started from the Burnside Council Town Hall Car Park and finished at the Sporting Car Club Rooms of which most of us are members. There we enjoyed our BYO lunches / drinks etc.

Discussion followed and information was distributed on the 2007 Alvis in the Out Back tour. Roly Forss kindly brought his collection of Alvis memorabilia for all to see.

Graeme and Lynette Lipsham and little daughter Cate, Roly and Helen Forss and John and Roma Mitchell joined us for lunch at the club having for various reason missed the run.

The Lipsham 4.3 didn't appear on the day, Graeme says that he has moved the baby bath etc and found the car..... He has promised to have it all ready and running for Alvis in the Outback 2007.

Due to our inability to fit in with the commitments of every one, Mike and Mary Osborn were unable to attend on that day and Peter and Anna Godfrey both were "down with the flu," I know that they were all with us in spirit!

A very pleasant day together!



From left to right: Marion Eglinton, Betty Jones, Clova Scott, Claire MacDonald, Kath Austin & Jill Bosanquet

The Alvis TA 350 by Chester McKaige

When a group of us gave a talk at a recent Riley Club meeting, Richard Tonkin gave a presentation on post war Alvis cars that included the defunct TA350 V8. Not much has been written regarding this project mainly because those that were involved on it are long dead and the one off example built was destroyed along with all the tooling and drawings.

All that remains are a couple of line drawings and I believe the radiator badge that was salvaged from the car before it met its fate.

The desire for a V8 engined Alvis had been brewing in the mind of the company's chairman John Parkes for some time and when Alec Issigonis joined the company after a distinguished career at Morris Motors, the possibility of achieving such a car could now become a reality.

Issigonis had made a name for himself firstly with his "Lightweight Special" racing car that he used with great verve in VSCC events in the 1930s and then at Morris Motors where he designed almost single handedly the Morris Minor initially with a side valve engine culminating in a 1098cc engine. The next stage was to build a front wheel drive version of the Minor 1,000 but the project never materialized the axe falling when Morris and Austin combined to form B. M.C.

Issigonis had been having talks with Donald Healey with the view of producing a "tricked up" Morris Minor and likewise Healey had been discussing with Alvis the possibility of using an Alvis built V8 engine in his own cars. One thing led to another and Issigonis joined Alvis in June 1952 with a five-year contract and the brief to design a V8 engine and design a car to suit it. The new position went under the name of "Engineer in charge of Passenger Car Design".

The plan was to build 5,000 cars per annum, the car to have a V8 engine and sporting bodywork of unitary construction. If it succeeded, it would keep the car production side of the company well and truly set up for the next ten years or so. As it turned out, these predictions were very much just that, predictions.

Issigonis assembled a small staff around him most of which were already Alvis employees. Harry Barber the company's chief body engineer was thrown into the project as was Chris Kingham who had been responsible for the design of the 3 litre engine and was given the task of designing the V8. Others joined the team to look after transmission, bodywork and chassis engineering and Issigonis got his friend Alex Moulton on board to look at rubber mounted suspension design.

The team very much worked in secret although they had the full use of the foundry, machine shops etc at their disposal.

The original Alvis project was designated TA 175/350, the idea to produce two versions using a 1750cc four cylinder engine (one bank of the V8) and the 3.5 litre V8 engine although in 1954, it was decided to drop the 4 cylinder engine and continue on with just the one engine.

The shape of the car was not dissimilar to a Lancia Aurelia although it also looked very much like a stretched version of a Morris Oxford. Overall length was 14 feet 6 inches and 6 feet 4 inches wide the front and rear track being 4 feet 7 inches. It was 8 inches shorter than the 3 litre still in production but was wider, the 3 litre being 5 feet 6 inches.

Designed to accommodate 5 people, the car was seen to be quite spacious inside with minimal transmission tunnel giving considerable more leg room.

Whilst a body stylist was employed to look after body design, it was Issigonis who had the last say, the end result looking rather drab, Issigonis more concerned with the best utilization of space. The use of curved window glass and the means of bolted on wheel arches and sills to facilitate repairs etc were a direct result of Issigonis' days at Morris.

The grille and front bumper bar design were changed twice as the original design was described as "a dog clutching a bone in its mouth" it looking very much like that which would later be fitted to the early Morris Mini.

The final design was a proper radiator grille combined with the bonnet that lifted in the same manner as that of a Mercedes Benz and also containing a smaller version of the Alvis triangle radiator badge.

The dashboard was very Spartan when compared to previous Alvis models. The instrument panel comprised two large instruments sitting in the center console with a row of switches directly underneath. Open glove box compartments were situated on either side not dissimilar to the much later Austin 1800.

The gear lever was mounted on the right hand side very much like the cars of the 1920's and the handbrake was of the umbrella handle type positioned under the dashboard.

Seating comprised a bench seat in the front rather than the more traditional practice of bucket type seats, another trait left over from the days at Morris.

It was the intention of the Alvis Company to launch the car at the 1956 London Motorshow.

The engine proved to be the biggest stumbling block.

The first concept was to utilize a barrel crankcase but this led to troubles with rigidity and problems with expansion and contraction the end result being that when the engine got hot, the crankshaft rattled because the crankcase was expanding more rapidly than the bearing housings thus, causing the bearings to move.

The pistons ran in wet cylinder liners and the engine was fitted with single overhead camshafts, one per bank. Common practice at the time was to use chain driven camshafts, but Issigonis settled for skew gears of the same type used by Wolseley. Initially a 2" S.U carburetor was fitted but only produced 100 BHP so a twin carburetor set-up was installed given 124 BHP.

All in all, three engines were built and by November 1953, one engine had completed three hundred hours of testing and although the team had persevered with the barrel crankcase, it was replaced in 1955 with a more conventional one designed by Chris Kingham and manufactured by the Alvis foundry.

At this stage, David Brown of Aston-Martin fame was looking for an engine to replace the W.O Bentley designed Lagonda twin overhead camshaft six cylinder engine that had powered the Aston-Martin DB 2 and had suggested to John Parkes that maybe it would be worthwhile for both companies to look into using the same V8 type engine. A valuation by Aston-Martin of the Alvis V8 soon put pay to that idea, the chief designer at Aston-Martin saying "it had a dreadful crankshaft, like a piece of bent wire. We had no use for it and sent it back to Alvis".

Not much is known about the transmission used in the car but there was a Smiths Selectadrive centrifugal clutch that drove "a high speed propeller shaft connected to the gearbox/rear axle differential unit".

The gearbox comprised two gears that worked in conjunction with a Laycock overdrive on both gears. The idea of this set-up was to provide improved weight distribution and maximize interior space.

One of the major innovations was in chassis and suspension design.

The suspension comprised a twin wishbone front end with an anti-roll bar and rack and pinion steering, and an independent rear, using semi trailing arms with the use of rubber universal joints for the drive shafts. It was however in the springing that was revolutionary.

The original thought was to use conical rubber springs of the type that would be used in the Mini some years later. The springs were high mounted, above and concentric with the telescopic dampers. The next stage employed the use of putting two of the springs back to back, and from this sowed the seed of adding a hydraulic element by filling the cones with water and linking them by a water carrying tube made of copper from the front of the car. Hydrolastic suspension was about to be born.

Testing of the car was achieved by trying to achieve 1,000 miles in a night at the MIRA proving ground but the best result was 895 miles. A number of drivers did shifts at the wheel and when it got light, they returned to factory, put in a hard day's work fixing all the gremlins before returning to MIRA that night to re-evaluate the car's performance once more.

The results from this testing showed a car that had the ride quality not seen before in a passenger car, the handling characteristics were exceptional, but on the down side, the engine was noisy although the performance once the change was made from a single carburetor to twin carburetors was however exceptional. The small group of design staff were optimistic that with a bit more testing, the car could be a real winner in terms of breaking new ground. Little did they know that it would be the Mini and the Austin 1800 that would be the cars breaking the new ground.

Why then did it all come to an end?

The first problem was the cost of manufacture. The original idea of producing 5,000 cars per annum was changed in 1954 to 7,500 with 75 cars being built a week for 20 weeks, and 188 for 29 weeks, this being the seasonal requirements of the market dictating the shift in manufacturing levels.

The bodies were to be built at by the Cowley based firm Pressed Steel who at that stage were the only significant independent provider of bodies to the motor industry. Their original quote was in the order of £350,000-275,000 for the tooling costs that rose considerably in 1955 to £620,000 resulting in a single costing in excess of 233 pounds. This price was dependent on production of less than 5,000 cars a year. To make this viable, Alvis would have had to build the car at a rate of 500 per annum and double the selling price, something the board quickly lost interest in.

In a last ditched attempt, the company asked the ailing Singer firm to quote on the body. Singer had produced bodies for their own cars from its plant in Coventry but had fallen on hard times and were looking for additional work. They quoted a price of £300,000 for the tooling, which was cheap compared to the quote from Pressed Steel. The production rate would be 40 bodies per week.

Whilst this sounded an out for Alvis, in December 1955 Singer succumbed to a take over from the Rootes Group ending all thoughts of a Singer produced body.

The decision of Pressed Steel to virtually double the tooling costs gave the Alvis board of directors an easy out, John Parkes declaring that the company would concentrate on further development work on the existing 3 litre model.

To continue on with the T350, the company would have needed a further £700,000 and the banks weren't prepared to put the money up and so the Alvis board decided to scrub the whole project lock stock and barrel.

Issigonis was given a months notice in November 1955 and was snapped up by BMC, so after three and a half years at Coventry he would be working for Leonard Lord at Longbridge and the Mini and its other derivatives would put the name of Alec Issigonis well and truly on the map.

The one car that had been built was relegated to a corner of a factory. It was rumoured that there were enough parts to build a second car, but that never happened. The original prototype was cut up into pieces and sent to the tip. One engine possibly one of the original three was put into a special built by Mike Parkes, the co-designer of the Hillman Imp. This project was later scrapped and the engine scrapped as well. All that remains today are some suspension parts, the grille emblem and a couple of line drawings.

Researching material for this article was particularly difficult as not much had been written about the car or its history.

It all came together when I happened to have a sort out of my magazine collection and came across an article written by Jon Pressnell and published in Classic and Sports Car magazine in 1992. At that stage, it was the only reference I could find that spoke of the TA350 in great detail.

Almost a week later, I bought a copy of a new book written by Jonathon Wood titled Alec Issigonis The Man Who Made The Mini. I purchased the book mainly for my interest in his Lightweight Special racing car that shares some of his innovations with my 500 cc special. From a previous life, I also have a soft spot for Morris Minors.

This book gives an insight into the TA350 project and I have used both the Pressnell article and the Wood account to form the backbone of the above article.

For those of you who are interested in all this sort of stuff, I can highly recommend Jonathan Wood's book.

C.M

Vintage Collingrove Speed Hill Climb Weekend

Barossa Valley, SA

8th & 9th October 2005

After two successful previous Vintage Collingroves, this years event will be to the same successful formula. It will be a full weekend for owners of pre 1941 cars, mostly of a racing or sporting type but including some "tourers," plus CAMS Group J and K cars and some post war invited cars of "appropriate" character, for example MG TC,s. Beginners "Come & Run" licences generally available for those without a CAMS licence. There will be ample opportunity to enjoy some of the Barossa Valleys famous wines.

MAIN FEATURES

- Vintage Hill Climb on **Sunday** at Collingrove,
- The Barossa Vintage Tour on **Saturday** from Collingrove via Angaston, Greenock and Seppeltsfield and return of approx 70K.
- A boxed Gourmet lunch on **Saturday** held on the lawns of Collingrove Homestead, National Trust stately homestead with local Barossa wines and special low cost tours available.
- Wine Tasting by the Barossa Valley Small Winemakers Association
- **Saturday** Evening Dinner at Barossa Weintal
- **Sunday** evening Wind Up Dinner at Peter Lehmann Winery with a superb three course Gourmet Barbeque and Buffet
- "Historic" carpark to give the right atmosphere on Sunday at Collingrove.
- Veteran and Vintage motorcycles will join us this year.
- You can enjoy individual activities or all activities
- Vintage Collingrove Webpage with full details, Entry Forms & Supplementary Regulations now available from the SCC webpage. Go to www.sportingcarclubsa.org.au then "Events" & follow the links to our page. Scroll to the bottom & there you will find all of the information. **Or you can email, telephone or fax for the complete package to be posted.**

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ALVIS 3½-LITRE CHASSIS

A Refined Design, Combining High Maximum Speed, Acceleration and Quiet Running

FOR many years now the Alvis Company have been associated with the production of fairly high-priced cars designed to give an outstandingly good road performance, more particularly with regard to a high maximum speed and acceleration, combined with good road - worthiness. Interest therefore attaches to their new 3½ litre model, forming the subject of the following notes, and which, it is claimed, surpasses all previous models, judged by standards of acceleration, speed, smoothness, silence of operation, and road-holding qualities. This last feature is attributed mainly to the independent front wheel springing and steering.

During a recent *Autocar* road test, this chassis, fitted with a saloon body, attained a maximum timed speed of 90.91 miles per hour, while the acceleration from 10 to 30 m.p.h. was 4.4 seconds, from 30 to 50 m.p.h. 8.6 seconds, and the acceleration from standing to 50 m.p.h. through the gears, was 14.2 seconds.

The engine, a six-cylinder model with push-rod-actuated overhead valves, has the power transmitted to the four-speed gear box through a single-plate clutch, and an

intermediate coupling shaft. A Hardy Spicer propeller-shaft continues the drive to a bevel-driven fully-floating rear axle, while, as previously mentioned, one of the main features of the chassis is the independent suspension scheme adopted for the front wheels.

Engine.

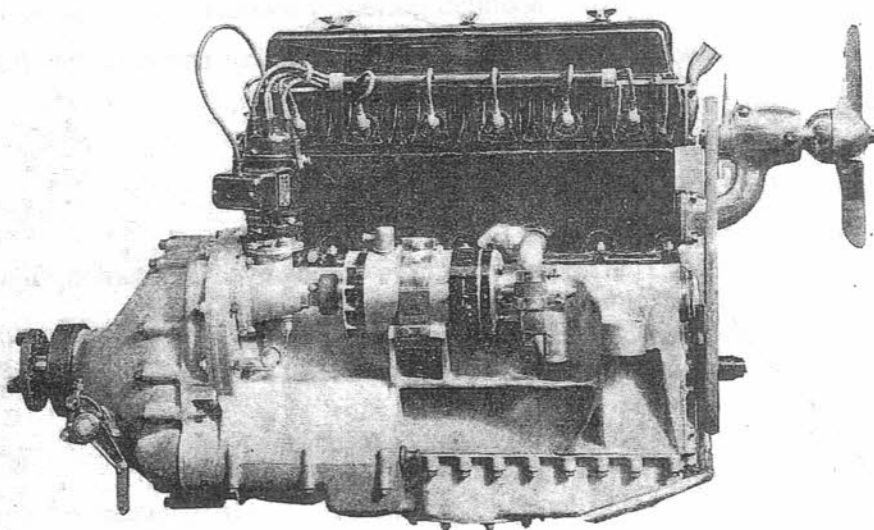
Of entirely new design, the power unit has a bore and stroke of 83 mm. and 110mm. (approximately 3.27in. by 4.33in.), giving a swept volume for the six cylinders of 3,571 C.C. and an

and 103.5 lb. per sq. in. respectively.

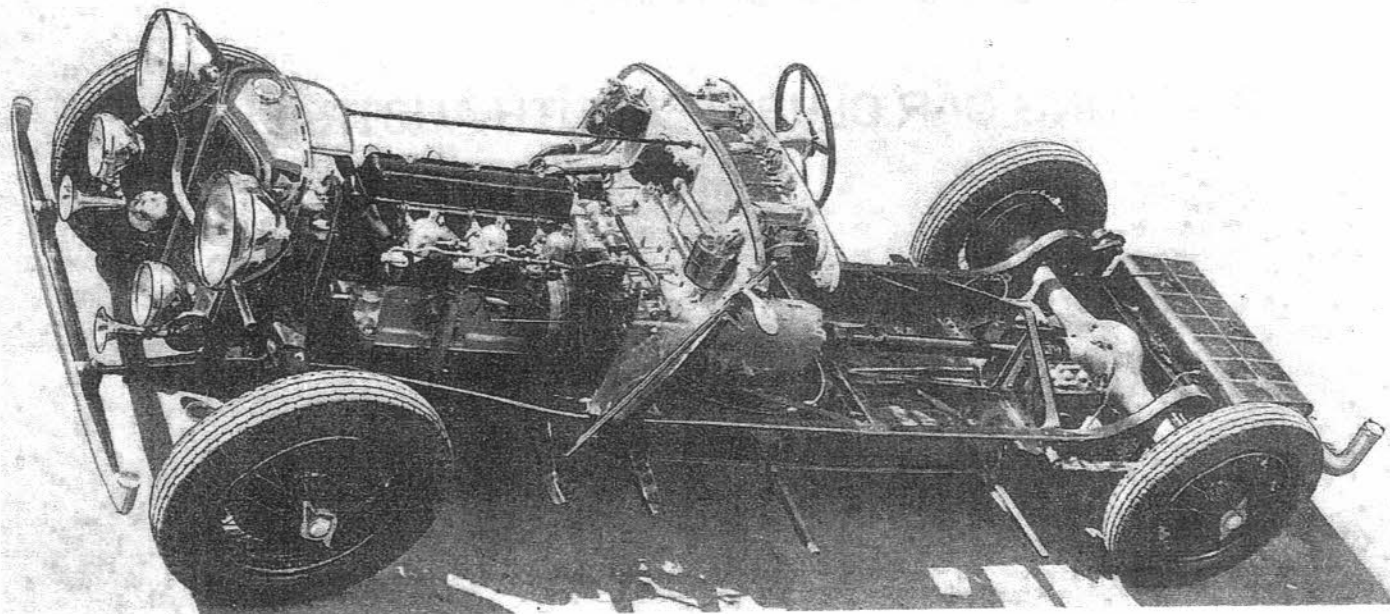
A monobloc casting separate from the crank case is employed for the cylinders, which is fitted with a one-piece detachable head. Ample water spaces are provided, carefully proportioned to provide the desired flow and avoid distortion in the cylinders or head. The head gasket is not relied upon to make a water joint, there being a separate passage between the cylinder and head. This will be seen in the arrangement drawing at the rear end of the cylinder block. The

water is circulated by a centrifugal type of pump driven from an extension of the dynamo, which in turn is driven from one of the timing gears which are at the rear end of the engine. At this point there is also a right-angle drive to the distributor and magneto. Although a waisted type of piston was tested experimentally, all production models have been fitted with Aerolite pistons, an

aluminium proprietary make which has given satisfactory results with this engine. Each hollow gudgeon pin is bored slightly taper from each end, and is nipped in the small end of the connecting rod, the head of which is slotted and provided with a bolt.



RAC rating of 25.63 hp. During a recent bench test with an improved form of camshaft recently adopted as standard, 65 b.h.p. was developed at 2,000 r.p.m., 95 b.h.p. at 3,000 r.p.m., and 115 b.h.p. at 4,000 r.p.m. These three readings correspond to brake mean effective pressures of 117, 114,



Of H section, the connecting rods are steel forgings, the big-ends having anti-friction bearing metal die-cast in position. It will be noticed from the cross-section of the engine that the flanges of the rods are swept into the bolt bosses.

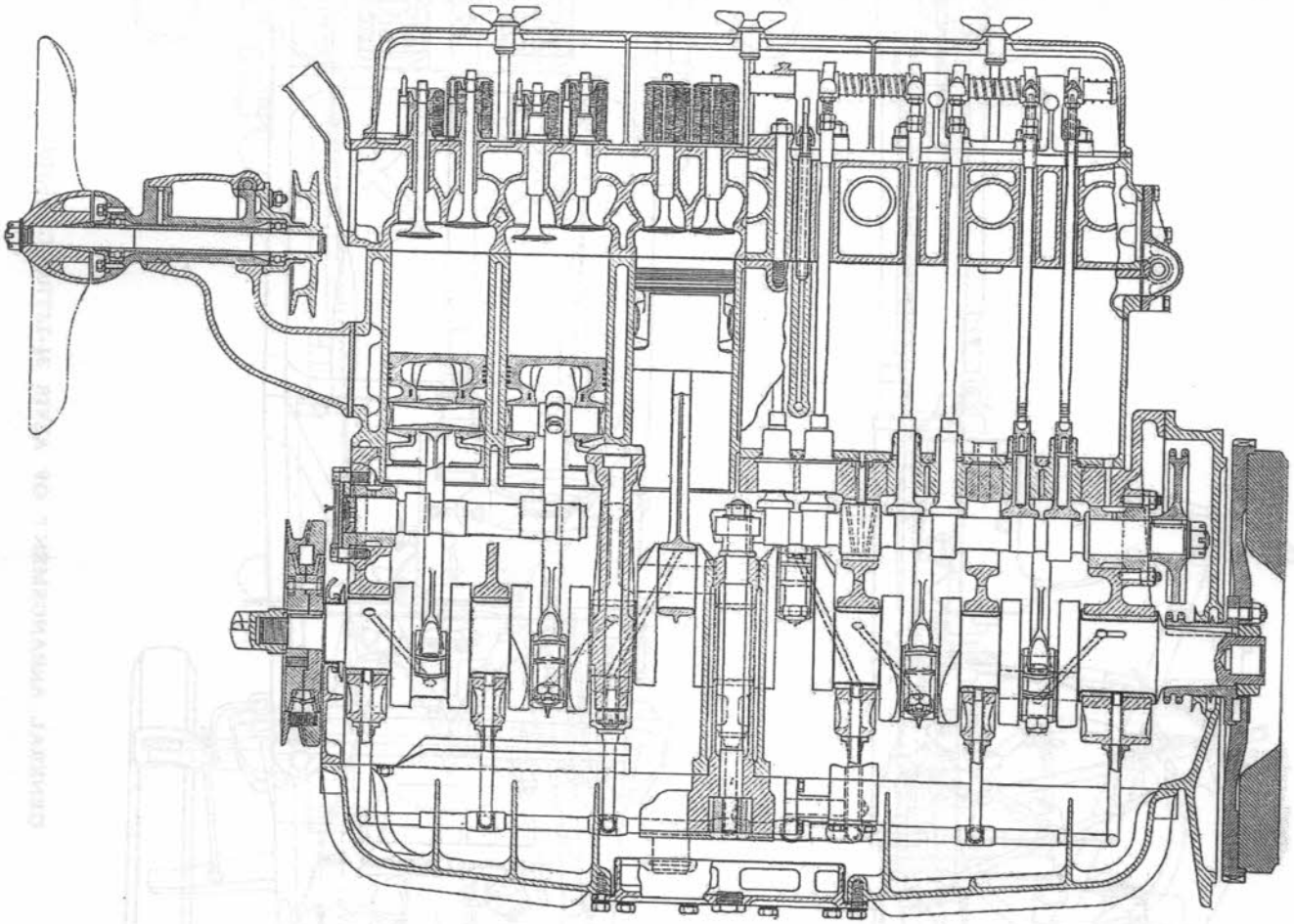
Silence of operation and absence of vibration are ensured by employing a seven-bearing crankshaft in conjunction with a torsional vibration damper and resilient rubber engine mountings. The vibration damper is mounted at the front end of the crankshaft, being incorporated in the same unit as the V-pulley for the fan

position outweigh the disadvantages of reduced accessibility, as the timing gears seldom require attention.

The camshaft dynamo and distributor drives are by duplex chain drives are by duplex roller chains. Adjustment is provided for the chain by an automatic chain-tensioning device. This basically consists of a shaft carrying a jockey sprocket. The shaft is bolted to the crank case so that its sprocket end projects into the timing case. On to this extension is fitted an eccentric housing around which is mounted a dual-toothed sprocket which engages the timing

back in the reverse direction. In other words, the tensioner acts as an automatic jockey pulley.

Carried in four plain bearings, the camshaft is mounted in the upper part of the crank case, and the valves are actuated through normal-type tappets and pushrods. The rods are tubular, and have inserted spherical ends top and bottom. Those at the lower end therefore work in spherically shaped cups and thus tend to retain lubricating oil, while the cups at the upper ends are inverted so that, they do not retain the oil, but are constantly fed through drilled passages in the rocker arm.



drive, and is retained in position by the starting handle claw.

Forced lubrication is provided for the crankshaft main and big-end bearings, the heat-treated steel shaft being drilled throughout for this purpose. A rotary gear pump situated in the sump is driven from a spiral gear on the camshaft. The camshaft and tappets are splash fed, but oil is pressure fed to the valve rockers and upper ends of the push-rod ends.

The timing gears are arranged at the rear end of the engine, where, being adjacent to the flywheel, they are less affected by the torsional vibration of the crankshaft. The advantages of this

chain. The outer member of the free-wheel is coupled to the housing by a dowel peg, the only rotating part of the mechanism being the sprocket which revolves around the housing. The chain is maintained in correct tension by a large clock-type spring fitted inside the housing, the inner end being anchored to a slot in the shaft and the outer end by a peg in the housing. The tendency of the spring, therefore, is to push the housing in an upward and inward direction, thus taking up any slack or chain stretch between the crankshaft sprocket and the dynamo driving-wheel, while the free-wheel ratchet prevents the tensioner working

The tappets are of the orthodox hollow mushroom type with the cup ends inserted. The tappet guides are shouldered and registered in the crank case, being clamped down by the cylinder block itself. There is a separate duct leading oil to the overhead-valve gear, the rocker shaft being drilled and lubricant forced through small holes in each rocker pivot pin. Surplus oil from the valve gear gravitates through apertures in the cylinder head and block, lubricating the tappets and camshaft bearings. From a two way union in the main lead to the overhead-valve gear, a flexible pipe is connected to the oil gauge on the dash. The valve rockers are mounted on their shaft, with coil

the dash. The valve rockers are mounted on their shaft, with coil springs arranged between them so that each may be slid clear of its pushrod when this has had its adjustment slackened to the limit.

Interest attaches to the multiple valve springs, which have been a feature of Alvis design for some time, and for which it is claimed that they ensure that the valves completely follow the cams at all speeds. Better engine performance results, especially at high engine revolutions, as valve bounce and spring period are eliminated. Instead of one or two concentric springs, a series of nine small diameter coil springs are arranged in a circle between two large washers acting as location plates. Each spring is mounted on a vertical pin, the lower end of which is riveted into the bottom plate, while the upper end is reduced in diameter and passes through a hole in the upper locating washer, through which it projects when the springs are compressed.

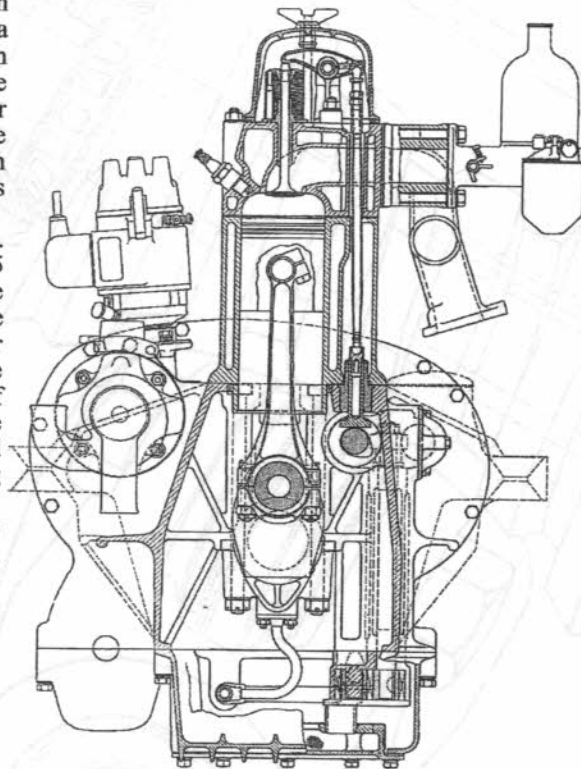
The inlet valve opens 15 deg. before top dead centre, closing 55 deg. past bottom dead centre, while the exhaust opens 55 deg. before dead centre, closing at 15 deg. after top dead centre. Cast iron valve guides are fitted. The firing order of the engine is 1, 5, 3, 6, 2, 4. The whole of the valve gear is enclosed in a single light aluminium casting retained by three butterfly nuts.

Another special feature of the power unit is the induction system fitted with three synchronised S.U. carburettors. After considerable bench testing and experience on the road, the designers are satisfied that to obtain the maximum output from a six-cylinder engine without supercharging, three carburettors are essential, particularly if this feature is to be combined with good running at slow speeds. It has been found

that there is more than 10 per cent. drop in maximum power with one carburettor. With two carburettors maximum power is obtainable, but when the engine is tuned to give this, there is uneven running at slow speeds.

The rear carburettor incorporates an easy starting device for cold starting. This consists of a fitment on the float chamber controlled by Bowden wire from the dash. In its essentials the device consists of a by-pass valve. On an extension of the float chamber is a tubular reservoir into which fuel flows from the float chamber through a very small hole. At the top of the reservoir is another hole allowing air to enter so that the well under normal conditions always contains petrol which flows into it by gravity. Extending almost to the bottom of this well is a small bore tube which is taken into one end of the balance pipe by one of the three carburettors. It then passes along inside the pipe and is pierced with two

small holes some inches apart. When the dash-controlled needle valve is opened the depression in the inlet pipe with the throttle almost closed draws a fairly large charge of petrol mingled with air from the easy starting device. As soon as the engine starts, however, there is no longer sufficient suction in the inlet pipe to draw on this device which thus gradually fills up with fuel ready for use next time. This device, of course, is only used when starting from dead cold. Another interesting point concerning the induction system, which is of the three-port type, is the use of an air intake manifold. This is an aluminium casting having three horizontally disposed off take feeds,



Cross section of engine.

one to each carburettor, which are bolted to the air inlet flanges. On the top of the casing are two inlets, to each of which a large combined air cleaner and in-take silencer is attached. These are inclined at an angle so that they are accommodated in the spaces between the three carburettors. The use of such a manifold in conjunction with two large silencers reduces eddy currents and provides more stable conditions for the air entering the carburettors. In addition, it ensures adequate air cleaning and the elimination of carburettor roar without any slight loss of power due to restriction. Considerable experimental work had to be carried out with various types and sizes before this result was achieved.

Located at the extreme rear end of the chassis, the petrol tank has a capacity of 17 gallons. It is provided with a changeover tap, which in the normal position leaves a reserve of 1.6

gallons. Fuel is drawn from the tank to the carburettors by twin S.U. electric petrol pumps which are bolted to the rear side of the dash and are therefore readily accessible for adjustment. The pumps are identical, and both work on the same pipe line. In the event therefore of one failing, the other continues the supply. In fact, only under full-out conditions would the driver be likely to appreciate any falling off in power.

Dual ignition is provided, a B.T.H. combined magneto and coil ignition set being installed. The coil ignition is reserved for starting or as an emergency in case of magneto failure. A changeover switch brings the

revolving magnet type magneto into operation after starting

The ignition equipment is provided with an automatic advance mechanism. The manual advance varies the ignition point between 7 and 27 deg. before top dead centre, while the automatic advance covers another 25 deg. earlier.

The aluminium two-bladed fan is mounted on a spindle carried in two-ball journal bearings, which in turn are housed in an eccentric member

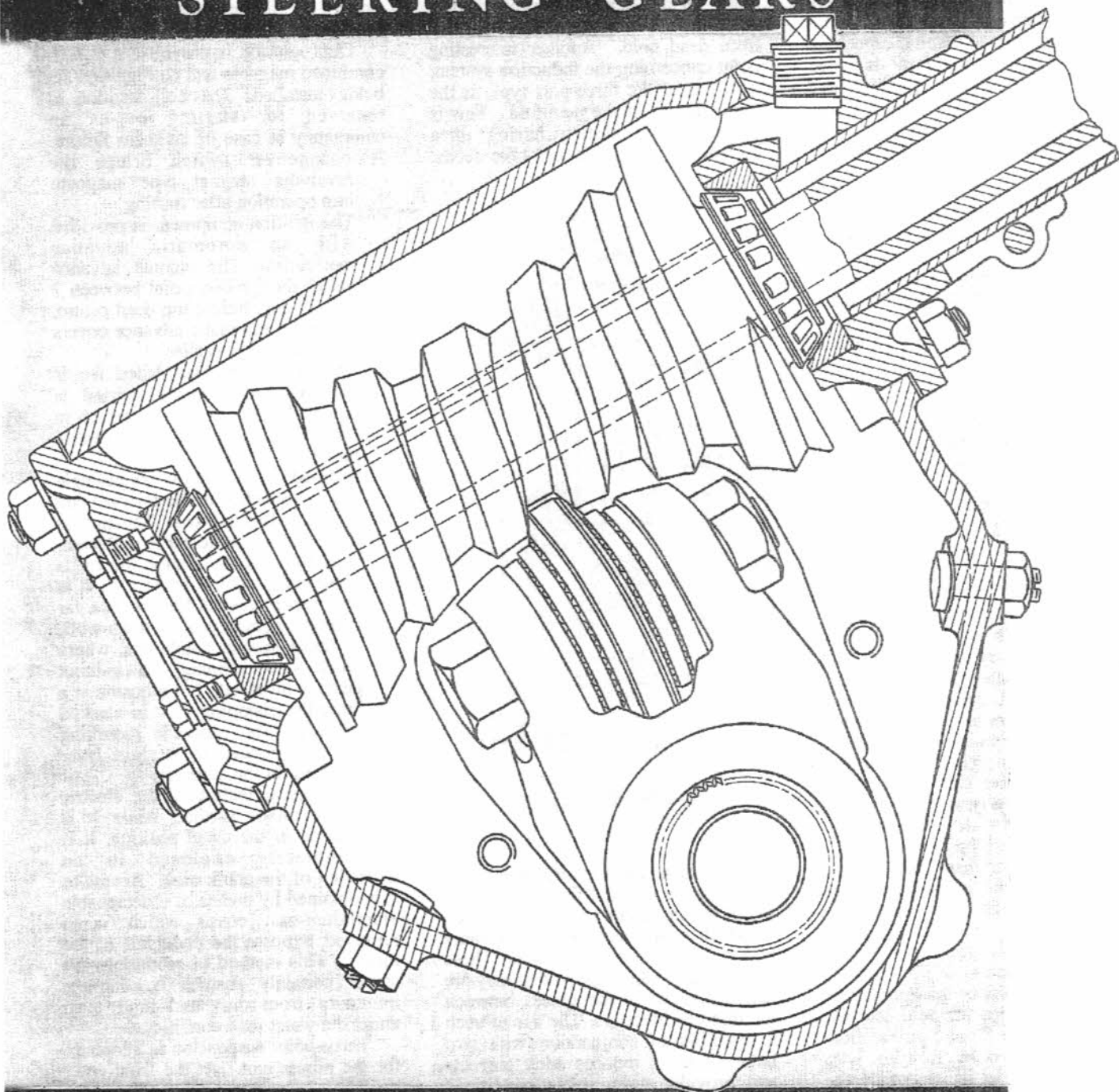
retained in a hollow right-angle bracket attached to the forward end of the cylinder block. The belt is not fitted when the car is delivered, as in the makers' opinion the car is adequately cooled without it. It is only recommended for use on a car habitually employed for town work or under special conditions, where much slow running, on indirect gears is involved. For adjustment a butterfly clamping nut is slacked off when the eccentric mounting can be operated by a short lever attached for the purpose.

An unusual feature of the electric starter motor is that, while it is situated in the usual position, it is completely enclosed in an extension of the crank case. Access to it is obtained by means of a detachable aluminium-cast cover which when removed, exposes the underside of the motor. This method of mounting, the starter certainly ensures it complete immunity from dust and mud even under the worst road conditions.

Three-point suspension is adopted for the power unit. At the front end two short extension arms are formed, on the crank case, each terminating in a boss, on either side of which is fitted a substantial rubber cone. The cones in turn are fitted in sheet-metal cups, the lower one, resting on a diagonal stay which reinforces the front end of the frame. The rear suspension member is just behind the clutch. It takes the form of a circular metal ring having an arc of rubber fitted top and bottom, a design which accommodates the slight lateral movement associated with an engine of this type.

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I WONDER WHO THIS COULD BE???

While Parky was out testing his Speed 20 last Sunday, he was approached by a Motor Cyclist in a car park beside Cardinia Lake.

"I see ya got an Alvis mate! do you know many Alvis blokes!?" he asked

"Just a couple" Parky replied.

As it turned out he was the workshop manager for a Spring Works and had reset springs for two very notable people in the Alvis Club. He detailed how one of the cars still had a problem, and after numerous attempts, still there was the noise coming from the rear each time it went over a speed-hump.

It was decided to remove the rear seat and the mechanic would lie on the floor to get up close and personal with the noise. Now this has to be a very large car for a man, of this person's size, to lie down on the floor of an Alvis!

The road test began with the mechanic hanging between the cross members, while the Alvis driver negotiated a speed hump at considerable SPEED!!!!!! "Eureka" problem solved - as the car went over the speed hump, the unsecured battery left its cradle and returned, thus making the offending noise.

Parky cannot take this any further for fear of litigation, as he is within an inch of the LAW.

SWAP, BEG, BORROW or STEAL

FOR SALE

2005 NATIONAL TOUR on DVD

The 2005 National Tour DVD is almost ready for release (sounds impressive), so if there is anyone out there with video we could utilise please forward it to me as soon as possible.

The DVD will be available for \$10 per copy (to cover media, packing and postage). We can provide it on VHS if you prefer. If you would like a copy please let me know. Please be aware this is NOT a professional production but does include some excellent footage of the event.

Dale Parsell (dparsell@ozemail.com.au)

INFORMATION REQUIRED on TA14

Hi, my name is Terry Quelch. Around 1968 ish, I owned an Alvis TA14 DHC. Reg. GGB 333. This was sold to an Australian naval guy for the princely sum of £100. (had to pay the gas bill). With the car went a pack of break down photos that showed the car in pieces with each part labeled. Is there any member that still has my old car. Cheers and happy motoring. Terry Q

If anyone has information that could help Terry please forward it to Dale Parsell (dparsell@ozemail.com.au) and I will pass it on

ANSWER:

You may recall Bob Northey's request for help in regard to removing the headlight rims from his SP20. The following is an answer received from an AOC member and may be of interest for other Rotax equipped SP20 owners.

SA Speed 20 lamps (Rotax) rims spring over a number of moulded projections around the rims of the bodies. The rims are not removable by rotation. The original method for removal was a small 'cam' attached to a plated cross-slot setscrew located on the top of the rim at 12 o'clock. The cam is double ended so that twisting the screw either left or right forced the cam lobe against the top vertical edge of the body of the rim thus forcing it off over the mouldings without damage. It can only be assumed that Bob's lamps have had the screws and cams restored out of them. The cams actually work very well when in position and ideally ought to be re-made to be satisfactory in use, otherwise a screwdriver is required around the rim and damage cannot be avoided. With regard to sealing the glasses to the rim - we use a clear sealer to actually stick the glass to the rim thus providing a better seal than the old cork rings which are almost impossible to seal following chrome plating and repairs that have taken place over the years. There is still room for an authentic cork seal behind for appearances sake.

WANTED:

SP 25 Hand Brake lever arm
Generator louvred band to cover brushes
2 x 1/2 Ball and wing nut as located on threaded brake rods
Pass light Glass--2 of
Gear Box mounting brackets--offside, nearside and rear
Likely, models other than the SP25 will share the componentry.
Michael Lavender, NZ Alvis Club
Call Collect 0064 33255704 (New Zealand)

WANTED:

3 litre TA-TD
Flywheel & clutch assembly
Flywheel housing
Manual gearbox
Clutch pedal & linkage hydraulic or manual.
GarryDalliston (07)5546 1998

WANTED:

"TA14 Parts

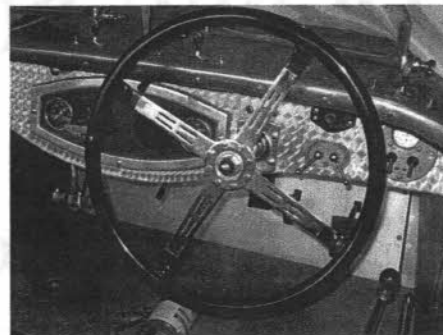
- Radiator Grill - mine's a mess following a prang in the '50s
- Driver's Side Headlight - to replace a non-standard fitting resulting from the same incident
- Rear Lights - any parts
- Jack - preferably with a round lifting peg (as opposed to the square one on most cars)
- Distributor Manual Advance Linkage - the lever attached to the engine end of the steering column tube and the ball jointed link from there to the bellcrank attached to the block.

Alternatively, if there's a moribund but straightish TA14 out there needing a home, I'd consider that.

Mike Williams - phone 0418 478947 or e-mail to mikew@tassie.net.au

WANTED

For FWD—Steering wheel- 4 blade- without central hand controls- not sure of diameter but reasonably large. (see photo)
also Solex 40 MOHD carby
Des Donnan 07-5445 9981



WANTED:

Pair Bosch 10 inch diameter Headlamps JG 240 or JG280 and a pair of Bosch side lamps J120.
Ring Geoff Hood (03) 9842 2181

If your advertisement appears on this page and is no longer relevant, please notify the newsletter editor.

John Langed

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