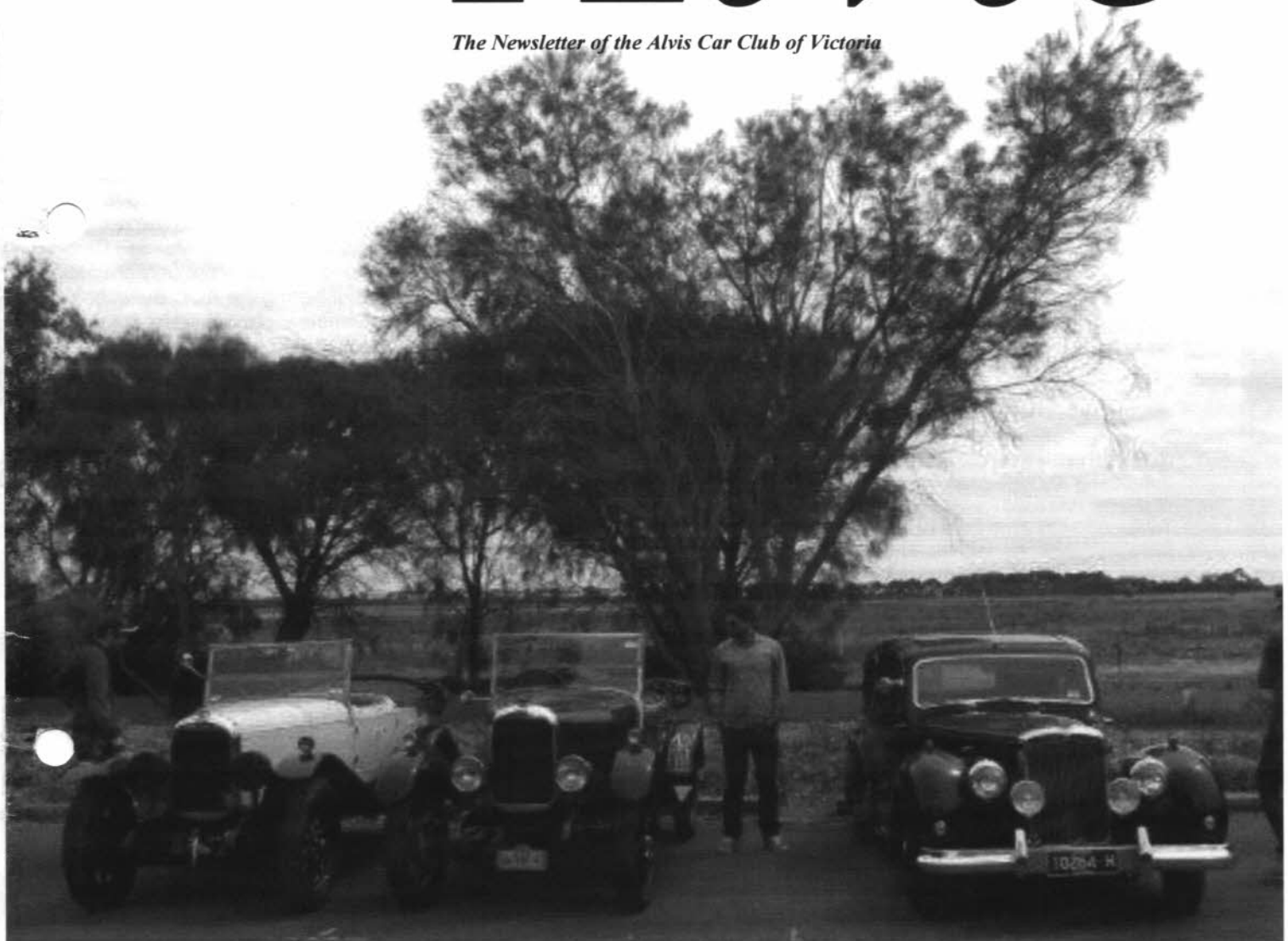
November 2014

# Alvic

The Newsletter of the Alvis Car Club of Victoria



The Little Engine that Could

Trafficators Revived

November 2014
VOL 53 ISSUE 10

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# 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 the month.
POSTAL: ACCV P.O.Box 634, EMERALD, VIC 3782
*www.alvis.org.au*

## PRESIDENT'S REPORT

Our October monthly meeting included our AGM and Awards Presentation Night. I wish to thank the outgoing committee members for their good work in organising the events and promoting the Club and the Alvis marque throughout the year. As there were no new nominations, the previous committee was re-elected with the exception of Sally McKaige who for understandable reasons has stood down from her committee position. However I congratulate Mark Weller for accepting and being elected to the position of Vice President and in doing so I also wish to acknowledge and thank John Hetherington for his wise counsel and the time he spent in recent years as Vice President. I wish to congratulate the deserving award winners: John Lang was awarded the David Muirdan Club Person of the Year for his outstanding service in not only producing Alvic, whilst having the heavy load of editing the AOC Bulletin, but also finding time to contact new members, provide welcome packs, organising events and providing assistance to the President when he is called upon. John has managed to provide this assistance even in times of personal difficulty; John Hetherington was awarded the Andy Hannam Trophy for the most regular attendee of events in an Alvis; Richard Wallach was awarded the McDougall Trophy for the best presented Alvis with his well maintained TA21 Saloon and also Richard was awarded the Bill Barber Literary Award for his continuing excellent technical articles on the improvement and maintenance of his car – this must be the best maintained and running TA21 in the country. We now need Richard to get another car which requires attention so that we can benefit from his restoration experiences!

I had an unintended visit to Motorclassica when I arranged to meet David Head at the entrance to the show, in order to collect a jelly mould from him. Whilst there I met another car acquaintance who had a spare pass so into the show I went. There were certainly lots of eye catching vehicles, including the two Alvis cars up for auction: the beautifully restored 12/40 Ducksback and an honest looking TA14 drophead. I happened to meet another historic vehicle acquaintance who expressed a desire to purchase an Alvis. The subsequent outcome was that Terry Wills Cooke purchased the TA14 and has now joined our Club. We welcome Terry and look forward to having him join us on club events in the future. He has already entered the South Australian National Rally.

On the last Sunday of October we joined the MGA and Ford A clubs for a run from Williams Town to the Point Cook foreshore reserve. In effect this was the 3 x A's run which hopefully will become an annual event. Our Club was represented by 3 Alvis cars; Frances and I in the 12/50, Chris Higgins who is to be commended for coming all the way from his place in his 12/50 and The Wallach clan in the TA21. Unfortunately a couple of other potential Alvis attendees had to pull out at short notice. It was a most enjoyable and friendly day, with everyone mixing well and admiring the respective vehicles. Again this served to demonstrate that there is a place for some joint club events.

Coming up we have the Geelong Revival at the end of the month followed the next Sunday by the Christmas barbecue at the Tonkin's place and then the New Year barbecue at the Kevin Bartlett Reserve on Friday 16th January. In the mean time the Committee will meet to draft up an events calendar for next year. If anyone has ideas for events that can be run or that we can join, please let a member of the Committee know.

When last I spoke with the McKaiges, Chester was making good progress. He was out terrifying the lawn on the ride on mower, had done a few small jobs in the workshop, was improving his keyboard skills and undergoing some speech therapy. We wish Chester continuing good progress and look forward to having him in fine fettle.

It is with sadness that I record the passing of a larger than life car enthusiast, Robert Penn Bradley. Robert was perhaps better known for his enthusiasm for Armstrong Siddeleys and for the many books he wrote about them. However Robert appreciated fine cars in general, had owned an Alvis TD 21, was a member of the NSW Alvis Club and had joined Richard Tonkin on a number of rallies in Richard's cars. We extend our condolences to his wife Miriam and family.

On the home front there is always something to do. The last time I rode my 1914 Matchless V twin motorcycle it jumped out of all gears so an ocky strap was employed to keep it in gear to the end of the rally I was on. I have had the gearbox apart, dressed up the gears and dogs, fitted new bearings and re-pinned all the control linkages. It should now function well. Also there appeared to be a burnt rear exhaust valve which turned out to be not too bad when I ground in all the valves. However before reassembling the valves I was amazed to find that the rear piston was coming up the cylinder way too far and as a consequence the top compression ring had been left off. Conversely the front piston was stopping way too early which in effect gave a difference in compression height of 15mm. How the engine ran so well and smoothly beats me. It turns out that the last assembler had fitted the pistons to the wrong connecting rods. It just goes to show that you never know what you will find when you purchase a supposedly well restored vehicle. Also the Sizaire engine is currently being reassembled following the failure in Robe earlier in the year. The Speed 20 Special has been transferred across to the workshop in readiness for having its clutch repaired again. I am going to take a day off and go to the Bendigo Swap Meeting. I am not looking for anything in particular, but something may catch my eye and it is always good to catch up with friends.

I hope to see a good roll up at next Friday's monthly meeting and if you are able to join us for a meal at the Malvernvale Hotel, prior to the meeting, let me know by Wednesday evening so that I can reserve enough seats.

Andrew McDougall

## NEW MEMBER

**We welcome Terry Wills Cook who recently purchased the ex Richard Harvey TA14 DHC.**

**We look forward to catching up with Terry at an event very soon.**

# SUPPER
# The BOSANQUETS

## 2014 COMING EVENTS

Club events are listed in BOLD and non-Club events are in Italics

| | | |
|---|---|---|
| **Nov** | **21** | **General Meeting** |
| | **29-30** | **Geelong Revival** |
| **Dec** | **7** | **Christmas Party - Tonkins at 15 Rob Roy Road, Smiths Gully, from 11.30am BYO everything. BBQ facilities available SANTA MAY CALL!** |

*Front Page: the Alvises at the recent Triple A outing*

# Triple A Outing: Alvis, MGA & Model A Ford:

This combined club outing was organized by Linda Hayhow of the MGA Club. It was a great day, which under grey skies started at the Time Ball Tower on the Williamstown foreshore. There was an excellent turnout from the MGA Club and the Model A Fords with three Alvis in attendance. Richard Wallach and family, Chris Higgins and the McDougalls.

We were given our instructions and then it was "start your engines" and we wound our way along the foreshore towards Altona and then via back roads to the Point Cook Road and onto the Point Cook Coastal Park for lunch. By the time we arrived the sun had come out and the cars looked wonderful lined up in the car park. Each of the clubs gave a short talk about their respective cars and the history of the makes, everyone had a chance to vote on the car they liked the most from each group. Our 12/50 Alvis was the winner of the award.

Lunch was a chance to talk with and meet the members of the other clubs. On this outing the green MGA's for once out numbered the red MGA's! Most took the opportunity to walk down to the bay and to read about the site of the WW11 air base in this part of Point Cook. We were also treated to a flying display by Tiger Moths and other older aircraft which was an added bonus.

It was a lovely day and great looking at other vehicles and meeting with like minded people from the other clubs.

Frances McDougall

*Ray McKenzie in Queensland, is the owner of a very pretty Martin & King bodied, 1933 Alvis Firefly saloon. Chassis No 10456, Engine No 10905. Some years ago, Ray was besotted by the name Alvis (as we all are) and purchased the car in a very derelict state.*

*My records show just 5 or 6 Fireflies in Australia and my thanks to Ray for the following information about the Firefly and also the article on his labours in reconditioning the engine some years after getting the car on the road. Ray's approach to the saga is very modest for what must have been a difficult job.*

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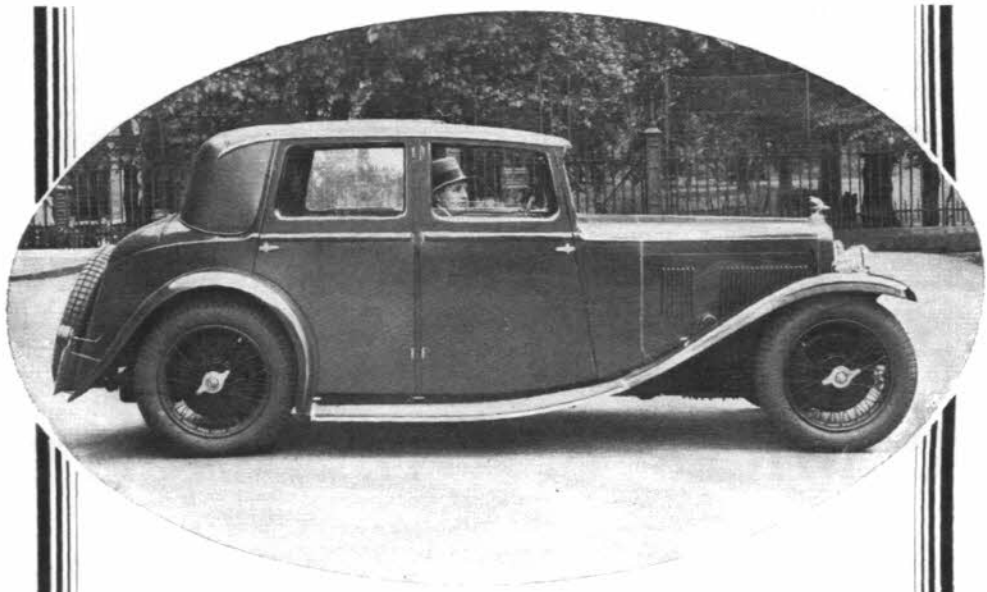


# 1,000 MILES of "ALVIVACITY"

First Comprehensive Road Test Report of

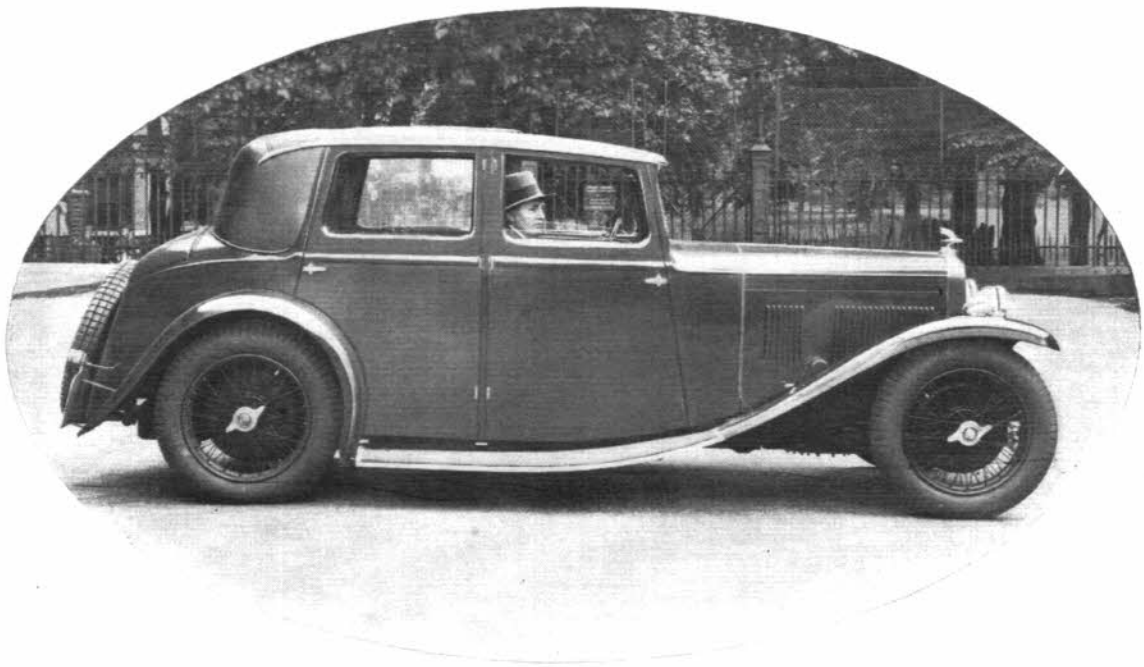
## ALVIS FIREFLY

with Pre-selector Gear

*Reprinted from*

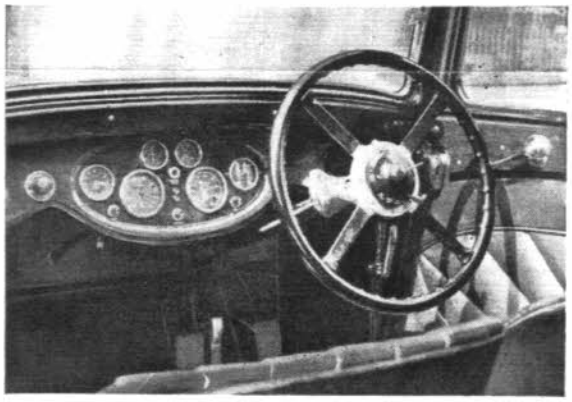
The Light Car & Cycle Car

*Reprinted from "The Light Car and Cyclecar," July 7, 1933.*



# 1,000 MILES OF "ALVIVACITY"

**First Comprehensive Road Test Report of Alvis Firefly with Pre-selector Gear**



*The roomy cockpit and a glimpse of the controls. Note the handy pre-selector lever beneath the wheel on the left.*

**Flying Quarter Mile Covered at Just Under 70 m.p.h. Against the Stop Watch**

THE Alvis Car and Engineering Co., Ltd., Coventry, coined the word "Alvivacity," and we make no apologies for borrowing it because it sums up so crisply the performances of the 1,496 c.c. Firefly. Readers will remember that we tested one of the gearbox models at the end of last year; recently we were able to take over one with a "pre-selector," and our summing up is the result not of a run round the houses, but of a fairly strenuous 1,000 miles which included a dash from London to North Wales and back and, of course, the return journey between the Metropolis and Coventry.

The Firefly is admittedly one of the more expensive light cars. In chassis form it costs £395; complete it sells for £495 (the pre-selector is £15 extra), which goes to show that £100 have been spent on the body and equipment and is indicative of the bold policy of the company in that a cheaper body might have helped to sell the car in greater quantities. The temptation, however, was put on one side and the result is a car which in performance, accommodation, appearance and comfort can justifiably claim to be amongst the aristocrats of the light car world.

Actions speak louder than mere commendation; here are a few facts to be going on with. The average speed of a run each way over a measured quarter of a mile with a flying start of roughly a third of a mile, timed with a stop watch, was 68 m.p.h., the fastest run being at 69 m.p.h. From a standing start the "quarter" was covered in 25 secs.

On the open road the maximum speed registered by speedometer was 78 m.p.h., on third 60 m.p.h. was attained, second gave an easy "30" and first about "20." The comfortable cruising speed was about 65 m.p.h.—just under 4,000 r.p.m.—and this could be maintained on road surfaces well calculated to tempt one in the ordinary way to ease the pressure on the accelerator.

The ability of the Firefly to sail majestically at high speed over second-rate surfaces is one of its greatest charms and, needless to say, it helps materially to maintain excellent averages on long cross-country runs. The brakes are good, but one has to remember that, with a full load, there is something over a ton and a half to slow down, and due allowance must be made for this. The steering is delightful at anything over 20 m.p.h., but naturally inclined to be a little heavy when the car is moving slowly: in this connection it must be borne in mind that the dimensions of the Dunlop tyres are 30 ins. by 5 ins. Hartford shock absorbers assist

## 1,000 MILES OF "ALVIVACITY" . . . Contd.

the long semi-elliptic springs, but here low speeds appear to make no difference to comfort—a point which clearly demonstrates the fact that weight is sometimes useful.

Built under Wilson patents, the pre-selector box behaves in exemplary fashion. Pedal pressure is not unduly heavy, and in all gears the drive is taken up positively and without slip.

The controls are arranged admirably. The driving seat can be pulled up close to the wheel, so that the latter comes nicely "in the lap," and in this position of the seat the leg reach is just right for a driver of normal stature. The pre-selector lever is behind the wheel, but its length enables it to be moved from one notch to another with the tips of the fingers and without taking the hand from the rim. Ignition, throttle, lights and horn switch are grouped centrally above the steering wheel boss. Brake adjustment is carried out by a master turnscrew which projects through the floorboards.

The hand brake, by the way, is made to use. It is powerful and is in such a position on the right that instant access to it can be gained. On the facia board


**IN BRIEF.**

***ENGINE:** Four-cylinder, 69 mm. × 100 mm. (1,496 c.c., Tax £12), overhead push-rod operated valves, three-bearing crankshaft, S.U. semi-downdraught carburetter, coil ignition.*

***TRANSMISSION:** Pre-selector box (alternative to 4-speed sliding pinion box) ratios: 5.22, 7.21, 10.58 and 17.75 to 1. Open tubular propeller shaft, fully floating rear axle.*

***GENERAL:** Length, 13 ft. 6 ins.; width, 5 ft. 3 ins.; wheelbase, 9 ft. 10½ ins.; track, 4 ft. 4 ins.; weight (with 10 gallons of fuel), 26½ cwt. Tank holds 14 gallons.*

***PRICE:** (As tested and including pre-selector box), £510.*

*ALVIS CAR AND ENGINEERING CO., Ltd.,*
*Holyhead Road, Coventry*

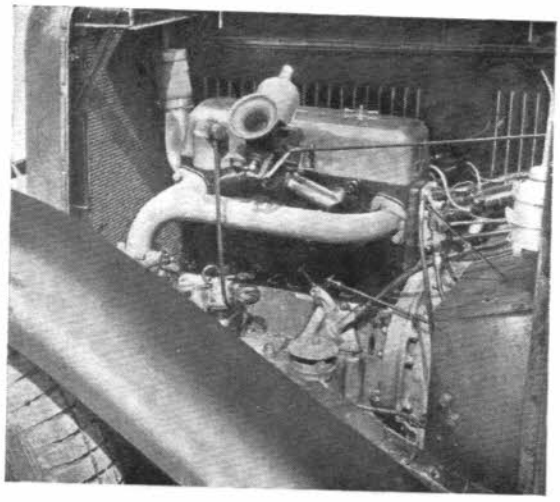
are grouped speedometer, rev. counter, clock, ammeter, oil gauge, petrol gauge and temperature gauge.

Maintenance work has been simplified so far as possible. The grease gun, for example, is readily get-at-able, being carried in a clip on the dashboard; the group system of arranging nipples is employed, and the level of the oil in the sump can be ascertained merely by consulting the reading given by a sliding rod in relation to marks made on the side of the crankcase. The rod, of course, terminates in a float which rides on top of the oil in the sump—and the latter, be it noted, holds two gallons. Adjacent to the sump level gauge is the oil filler—of generous proportions and with a good-sized filter. Oil consumption was at the rate of about 1,100-1,200 m.p.g., petrol consumption about 23 m.p.g.

Ignition is by coil, and a point worth mentioning is that automatic advance, which works independently of the hand advance, is incorporated. In actual practice we found that, by making proper use of the gearbox, full advance could be given all the time and with distinctly beneficial results in the way of acceleration. Knocking is evident only if the car is brought practically to a standstill in top gear.

The general lines of the car are impressive, dignified and obviously the work of an artist. Note how the ramp of the front wing blends with the "flare" given to the rear wing, and how the angles of windscreen, rear quarter and back panel are made to harmonize.

Inside the car everything has been designed for com-



*Where the "Alvivacity" originates—the sturdy o.h.v. four-cylinder engine.*

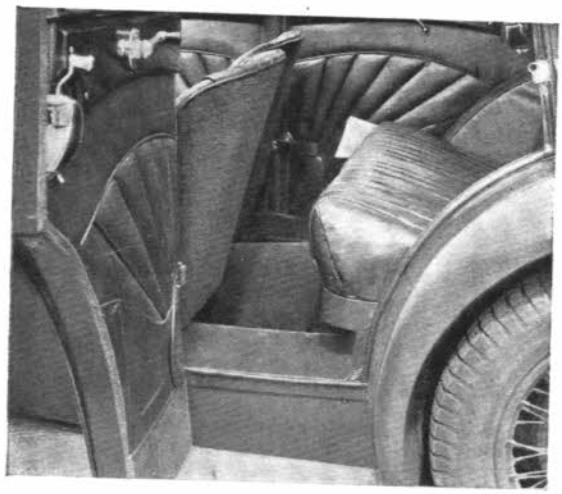
fort. The seats are wide and deep (but would be even more comfortable on long runs if pneumatic upholstery were employed), whilst, at the back, there is a folding armrest.

Luggage accommodation is generous, a very large rear container capable of holding several suitcases being provided.

Our journeyings, as we have said, took us into North Wales. Along the road to Weedon (where if you know the best route you turn off to join Watling Street) the Firefly soon demonstrated its paces and revealed the really delightful fashion in which it sweeps up main-road hills in the direct gear. Watling Street is narrowish, winding and in places hilly; the surface—judged by modern by-pass standards—is not good. On this stretch the Alvis showed off to advantage, the springing particularly meriting praise.

On corners the car proved to be very steady and free from rolling, the steering accurate to a degree. One of the several humpback bridges along Watling Street caught us unawares; we have a suspicion that the car took to the air on the other side but, at any rate, it landed four square and the crew registered only surprise at the unexpected.

Luxurious travel—and swift—for five really big people is provided by this monarch of the road. It costs a bit more than the average light car, but every penny has been well spent.



*Elegant coachwork and furnishing are features of the Firefly. Here is a view of the rear seat accommodation.*

# "FIREFLY TWELVE"

## Chassis Specification

ENGINE. 11.9 h.p. Four cylinders, monobloc casting. 69 mm. bore by 100 mm. stroke—1,496 c.c. capacity. Detachable head. Ample water spaces, separate passages being provided between cylinder and head. Crankshaft of heat treated steel, balanced, with three bearings. The pistons are of special aluminium alloy. Valves in head of special steel, actuated by push rod mechanism of exclusive ALVIS design. Camshaft and auxiliary drives by special Duplex chain on accurately cut steel gear wheels, entirely self-adjusting and situated at rear end of engine. Lubrication is by rotary gear pump driven by spiral gear from camshaft, providing forced lubrication to crankshaft main and big end bearings, and oil is pressure fed to valve rockers and push rod ends. Efficient and easily cleaned suction and pressure filters are provided.

COOLING. Thermo-siphon circulation is used in conjunction with an exceptionally large and efficient genuine honeycomb radiator, chromium plated.

CARBURETTER. S.U. Downdraught with ALVIS original hot spot induction system.

IGNITION. Special coil ignition is fitted, having automatic control supplemented by additional manual control for high speed work.

CLUTCH. Single plate clutch of exclusive ALVIS design, providing remarkable ease of control and easy gear change, with clutch stop.

STANDARD GEARBOX. Alvis Patent No. 349215/31. Four speeds forward and reverse. Central change by short, stiff lever, silent third gear. All shafts splined. Gears and shafts of alloy steel accurately ground where necessary after hardening. Gear drive for speedometer. Gear ratios, 5.22, 7.90, 11.90, 18.35-1; reverse, 18.35-1.

SELF-CHANGE GEARBOX. Four speeds, forward and reverse, pre-selective gear change operated by neat lever below steering wheel. Manufactured under Wilson Patents. Gear drive for speedometer. Gear ratios, 5.22, 7.21, 10.58, 17.75; reverse, 26.45.

ENGINE UNIT MOUNTING. Engine clutch pit and gearbox are mounted together as one unit and are carried on three-point flexible conical rubber mountings. Covered by ALVIS Patent No. 242,503, of 1925.

CARDAN SHAFT. Tubular, of exceptionally large diameter, providing a very high factor of safety against "whirling" and consequent vibration.

REAR AXLE. Full floating rear axle of ALVIS design and manufacture. Noiseless spiral bevel and differential gears of nickel-chrome case-hardened steel.

FOUR WHEEL BRAKES. Special ALVIS brakes (Patent No. 356,596), in drums 14 ins. in diameter, ribbed for cooling. All four brakes are operated by foot pedal and hand lever.

FRONT AXLE. Is designed to take the stresses imposed by front wheel brakes, and is a solid drop forging of high tensile steel.

STEERING. Of new pattern designed for easy, but definite steering with low pressure tyres.

SPRINGS. Semi-elliptic front and rear, of special alloy steel, and of exceptional length. Rear springs are underslung. All springs enclosed in grease filled leather gaiters.

CHASSIS LUBRICATION. Chassis lubrication is by a conveniently grouped nipple system and high pressure grease gun.

FRAME. Double dropped frame of high grade steel, very deep and of special section to ensure adequate support for coachwork. Six cross members ensure stiffness.

PETROL TANK. At rear of chassis. Feed to carburetter by petrol pump. Taps are arranged to provide for a reserve supply. Capacity of tank 14.5 gallons.

CONTROL. Foot accelerator, with throttle, ignition and lighting control levers on steering wheel. Hand brakes on right-hand side.

SHOCK ABSORBERS. Hartford Shock Absorbers fitted to both axles.

ELECTRICAL EQUIPMENT. 12-volt 2-unit system. Dynamo positively driven from engine. Dipping reflector headlamp electrically operated with offside lamp switch controlled from the centre of the steering wheel. Electric horn.

INSTRUMENT BOARD. Fitted with speedometer, revolution counter, clock, oil pressure gauge, petrol gauge, radiator heat gauge, ignition lamp, ignition and starter switches and connection for inspection lamp. All instruments lighted from rear for night driving; with entire absence of glare when lighted.

DIMENSIONS. Wheelbase, 9 ft. 10½ ins. Track, 4 ft. 4 ins. Length, 13 ft. 6 ins. Width, 5 ft. 3 ins. R.A.-C. Rating, 11.9.

WHEELS AND TYRES. Single nut central fixing wire wheels fitted with 30-in. by 5.0-in. Dunlop Cord tyres.

CHASSIS. Includes starting and lighting set, electrical windscreen wiper, all instrument board fittings, mascot of registered design, accumulators, speedometer, clock, licence holder, all tyres, including spare wheel and tyre, jack, foot pump and tool kit. Bonnet is not included. Specification liable to alteration without notice.

**PRICE OF CHASSIS .. .. £395**

Wilson Pre-selective Gearbox, £15 extra.

**SALOON** With sliding roof, enclosed luggage locker, furniture hide upholstery and safety glass throughout .. .. .. **£495**

**COUPÉ** Seating four, with folding head, furniture hide upholstery and safety glass throughout .. .. .. .. .. .. **£495**

**FOUR-SEATER** Of ultra sporting appearance, with really comfortable accommodation and unusually efficient all-weather equipment .. .. .. .. .. **£475**

Wilson Pre-selective Gearbox, £15 extra on all models.

*Write for full details of the complete range of ALVIS cars.*

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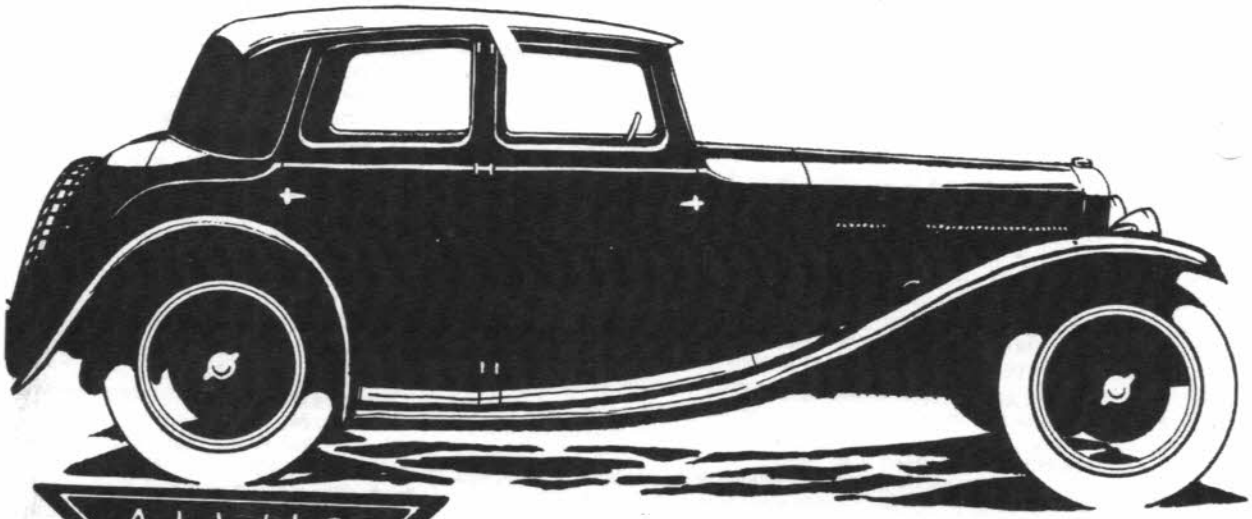



# FIREFLY

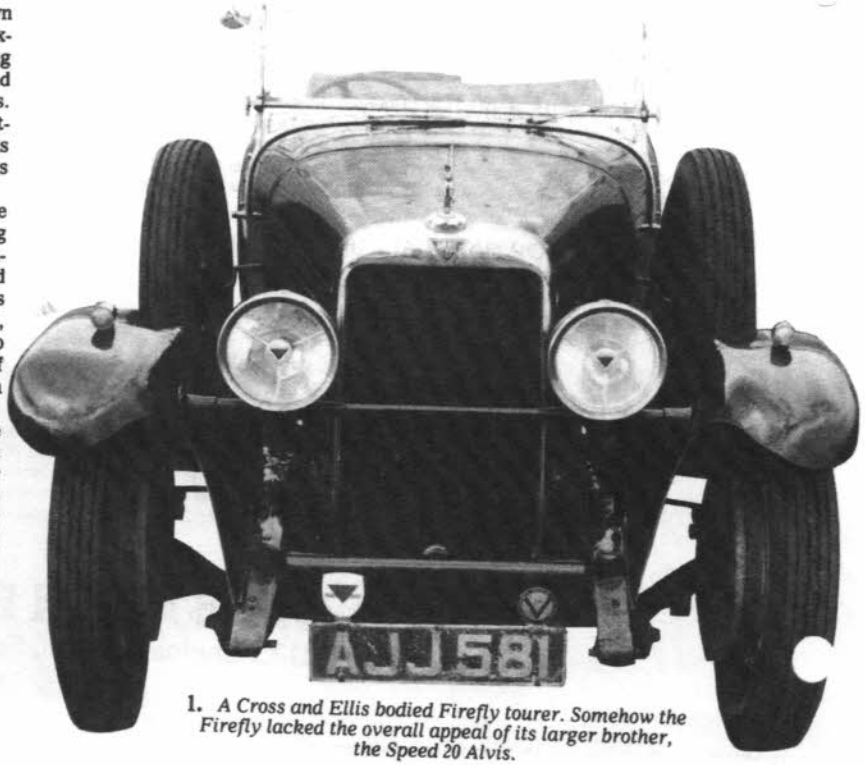
## Overshadowed By Big Brother Speed 20

*By Everett F. Smith*

In an effort to circumvent the despised "horsepower tax," and to broaden their range, a number of British fine car manufacturers in the '30s offered scaled-down versions of their most powerful and expensive models. Most notable among them were Lagonda with the Rapier, and Alvis with the Firefly and its derivatives. Scaling down an existing design and getting the result to perform and look right is no easy task, as both of these makers found out to their chagrin.

Neither the Rapier nor the Firefly were anywhere as successful as their "big brothers," and were completely overshadowed in their day by the larger cars, and have almost been forgotten by historians today; however, cars such as the Firefly, although never tremendously popular, do have a dedicated but small band of adherant today, and are worth taking a closer look at.

The main deterrant to buyers of these cars when they were new was the fact that they were usually far too heavy for their engine size, and were relatively expensive also, due to the manufacturer's prestige being at stake - a poorly equipped and shoddily made car would never do, hence the relatively high weight and cost, along with the lackluster performance. Cars such as the Firefly certainly cannot be labeled as "bad" cars, but by the same token, they don't deserve the appellation "great" either. Alvis never built a bad car, it was just that some were better than others.




1. *A Cross and Ellis bodied Firefly tourer. Somehow the Firefly lacked the overall appeal of its larger brother, the Speed 20 Alvis.*

When the Speed 20 Alvis was introduced in January 1932 the response was both immediate and positive; here was a car which offered fine performance and high quality, as well as low, sleek and beautiful lines at an amazingly reasonable price. It was a connoisseur's delight, but in the depressed atmosphere of 1932, not many people could afford such a car. So, reasoned the folks at Alvis, why couldn't a smaller, cheaper version of the Speed 20 be offered, the idea being that the lower initial price, the lower tax rate, and the smaller size would bring buyers into the showrooms in droves.

Unfortunately, such was not the case. When the smaller version of the Speed 20, the Firefly, was introduced in August of 1932, the response was somewhat less than overwhelming. True, the Firefly shared many similarities with the Speed 20, but gone were the long lean lines, the air of distinction, and, most importantly, the performance of the Speed 20.

After examining the Firefly's technical specifications and comparing them with those of the Speed 20, it's easy to see why the Firefly suffered by comparison with its big brother. The Firefly's chassis was almost as heavy as the Speed 20's, yet only 50 bhp were on tap as opposed to the larger car's 87 honest bhp. Whereas the Speed 20 would do a genuine 90 mph, with correspondingly good acceleration, the Firefly was hard pressed to achieve its modest 74 mph maximum and the acceleration was nothing to write home about, i.e., 30 1/5 secs. to reach 50 mph from a steady speed of 10 mph (high gear). The price at 495 pounds wasn't all that much cheaper than the Speed 20's 695 pounds, so it can readily be seen why the Firefly wasn't the success that the Speed 20 and its descendants turned out to be.

The Firefly's technical details were like those of all Alvis cars (excepting the out and out racers and front wheel drive cars), in that tried and true mechanical specifications were perferred over exotic and oftimes unreliable overhead cams, blowers, etc. When Alvis did venture into new territory, such as with their splendid all-synchro gearbox, and the independent front suspension first used on the Crested Eagle, they did so after perfecting these engineering concepts to the best of their ability - the Alvis works was keenly aware of the damage done to their reputation by the unreliable front wheel drive cars, and didn't want to repeat that mistake.

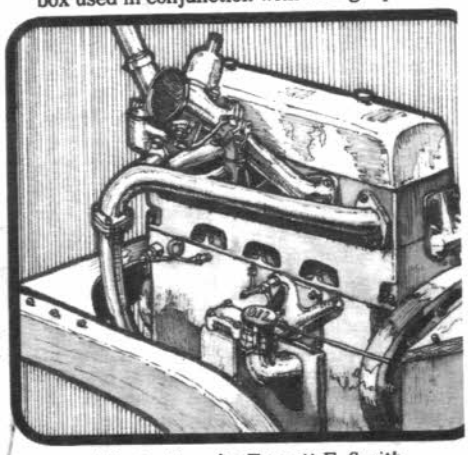
The engine used in the Firefly was a simple four-cylinder overhead valve unit which bore a distinct family resemblance to all Alvis powerplants produced in that era. The cylinder block was a monobloc casting, with a separate aluminum crankcase housing the three main bearing crankshaft. The crankshaft was relatively rigid for its day, and was well balanced; main journal size was 50mm, and rod journal size was 45mm. The valve layout had much in common with that of the Speed 20, in that the timing chain and gears were at the rear of the engine.

Both the distributor (coil ignition) and the generator were driven by the timing chain - these two items were mounted in tandem at the rear of the engine. A gear-type oil pump supplied oil under pressure to the rods, mains, timing chain, and the rocker arm shaft, with the cam lobes and journals being lubricated by excess oil from the overhead valve gear. The overhead valve gear was covered by a beautifully polished aluminum valve cover, and both the intake and exhaust manifolds were situated on the left side of engine.

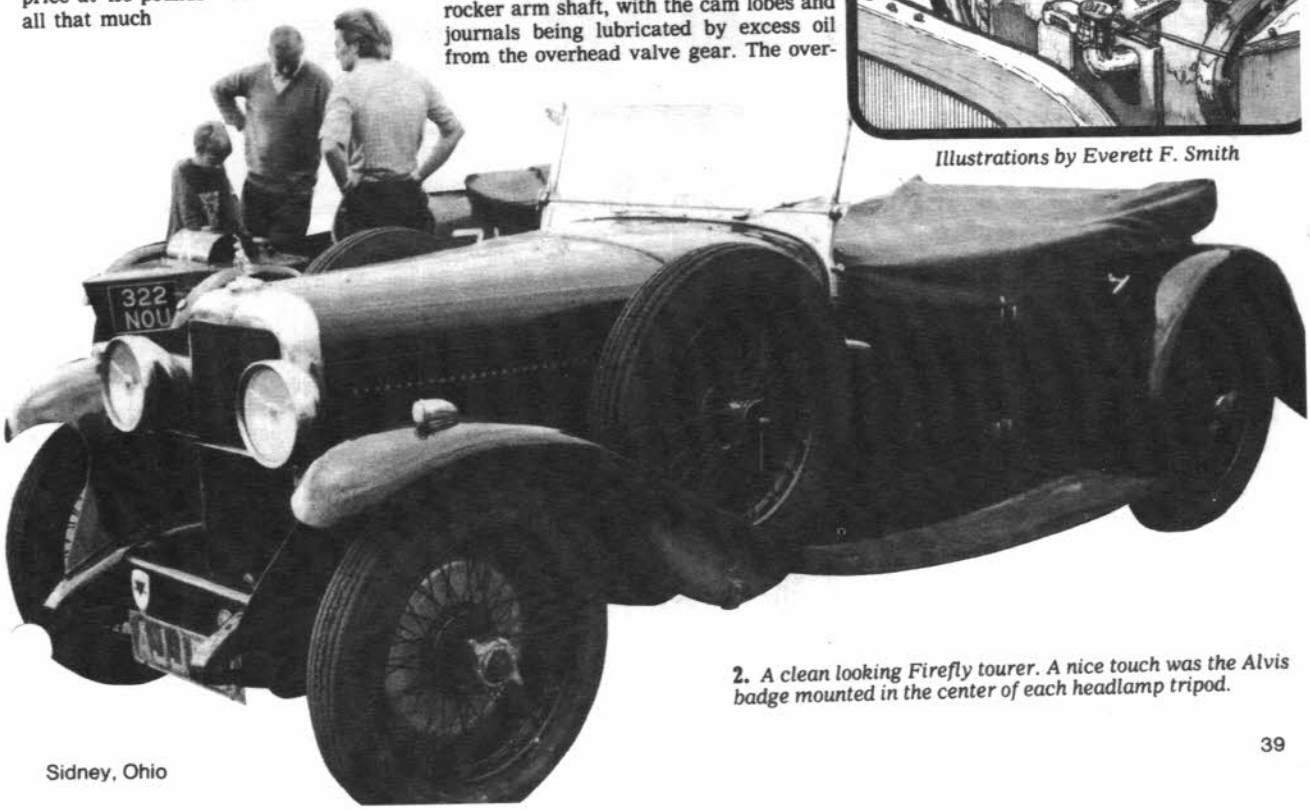
A single "semi-downdraft" S.U. carb handled the induction task, with fuel being supplied by an A.C. mechanical pump. A "hot spot" was formed at the center of the intake and exhaust manifolds, and the intake manifold was of a Vee shape. The pistons were made of aluminum alloy, the bore and stroke were 69mm by 100mm, and the total displacement was 1,496cc. A relatively high compression ration (for its day) of 5.8:1 was used.

Thermo-siphon cooling (no water pump) was featured, and an aluminum water transfer plate at the rear of the engine conducted the water from the block to the head - this method was also used on the Speed 20, and meant that a leaky head gasket wouldn't allow water from the cooling system to get into the cylinders. A neat idea, and one which would be even more appreciated in these days of permanent anti-freeze.

The first Fireflys had a crash-type gearbox used in conjunction with a single plate



*Illustrations by Everett F. Smith*




**2.** *A clean looking Firefly tourer. A nice touch was the Alvis badge mounted in the center of each headlamp tripod.*

Sidney, Ohio

Alvis designed clutch. The gearbox was almost identical to the one used in the SA type Speed 20, only the Firefly's gear ratios weren't as close. In 1933 the ENV type 75 gearbox was listed as an option, and in 1934, the heavier ENV 110 box was an option. The author once sampled a later version of the Firefly with the 110 gearbox, and although it speeded gearchanging up somewhat over the old crash box, the ENV 110 gearbox certainly didn't enhance the Firefly's accelerative powers.

An open driveline was used and the rear axle was of the spiral-bevel type and resembled the Speed 20's, in that the rear axle housing was an aluminum casting, with steel tubes added for strength. The whole drivetrain, from the engine on back, conveyed the impression that it was built to the highest standards of design and workmanship, and it was!

The Firefly's chassis frame resembled that of the Speed 20 somewhat, although the Firefly had a shorter wheelbase (9ft. 10½ in.) and was not quite as low. The frame was of the "double dropped" type, and its beam and torsional strength were more than average for the early 1930s. A beam-type front axle was used in conjunction with semi-elliptic springs, with the rear axle being suspended by semi-elliptics as well. The shocks were Hartford friction-type, and the mechanical brakes were very good, providing one adusted them properly and frequently and was possessed of a strong left leg. The Alvis patented brake shoe mechanism was housed in large 14 inch diameter drums.

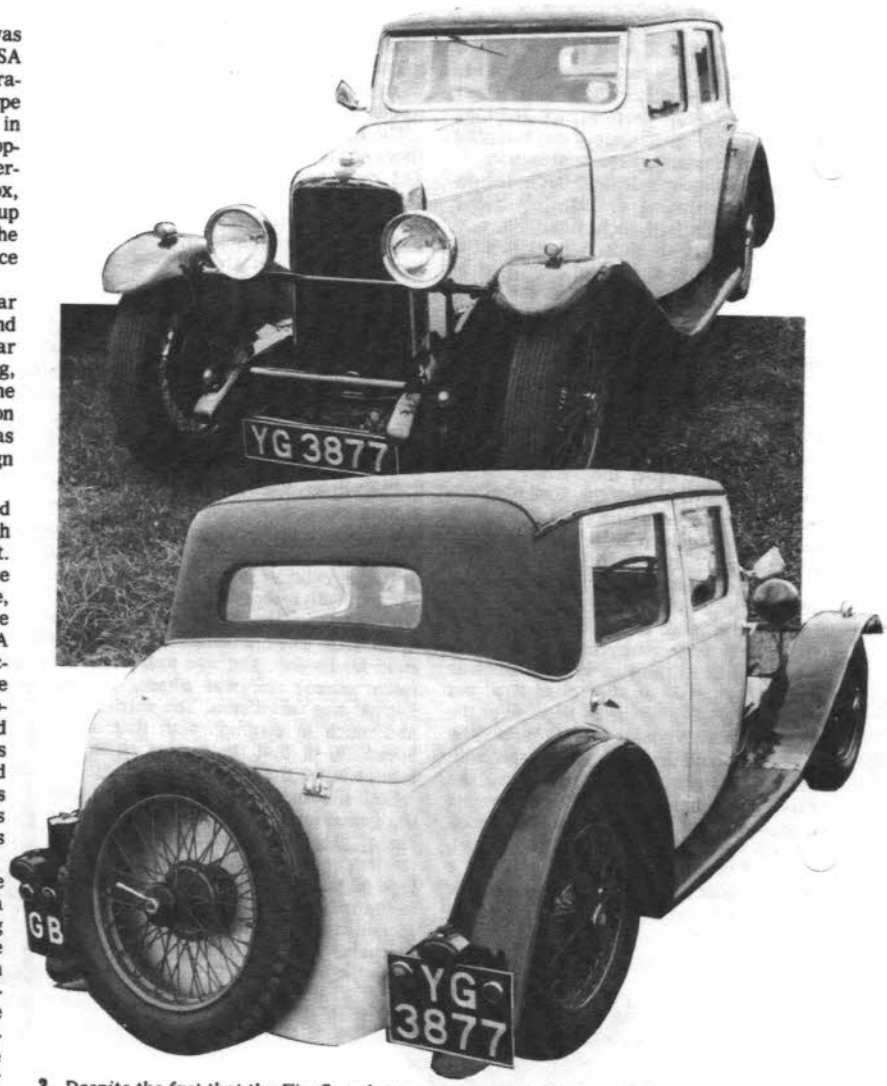
*The Motor* recorded a stopping distance of 26 feet from 30 mph when they tested a Firefly saloon in 1932. A Marles steering box handled the steering chores more than adequately, the lubrication system was simplified through the use of centrally grouped nipples, and a master brake adjusting knob all signified that the Firefly was well within the tradition of fine quality and excellent engineering for which Alvis had always been known.

The Firefly chassis was clothed with the usual tourer, drophead, and saloon bodies, coachbuilt as were all of the better British cars of this period. Cross and Ellis, Alvis' "house" coachbuilder, built most all of the Firefly bodies, with a few of the saloon bodies made by Holbrook. All of the Fireflys were good looking, but nowhere nearly as breathtaking as the larger Speed 20. A number of these fine cars have had their decaying original bodies removed and lightweight two-seater bodies installed, with this change improving performance considerably. However, a bit of history is lost each time this is done, so the tendancy today is to try to renovate the original coachwork even if this turns out to be a Hurculean task.

The Firefly was very well appointed inside, with the burled wood, fine leather and wool carpet giving one the impression of a much more costly automobile; unfortunately all of these items cost a lot of money to replace today, and the Firefly's value has only recently become great enough to warrant restoration to concours standards.

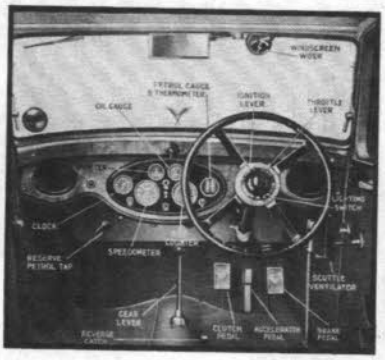
Although not quite up to the high standards set by the Speed 20 and its derivaties, the Firefly was still superbly engineered and built, and was very definitely worthy of the famous "Red Triangle" which graced its radiator shell. Few and far between on these shores, the Firefly is also a rarity in its native land as well.

The last Firefly was built in 1934, and an improved model, renamed the Firebird, was introduced at the end of 1934 in time for the 1935 season.




**3.** *Despite the fact that the Firefly saloons were somewhat heavy and lacked the performance of the open models, they were well made and offered luxurious transport at a modest price.*

**4.** *The Firefly saloon (sedan) featured "semi-panelled" construction, i.e., the top was covered in leatherette, and the body itself was panelled in metal.*



*View of the Firefly's dashboard. Ample instrumentation and burled wood veneer were featured.*



Cars & Parts

8/79

# "The Little Engine that Could"

When I first got my Alvis Firefly, very much in "kit form," it was obvious that the car had endured a hard life. It may have been sad, but it was an Alvis, a make that I had admired for many years; so sad as it was, it was desirable to me.

The disassembled parts had been rescued from behind a house in Hawthorn near the Brisbane River, where they had lain since the death of a previous owner. They were gathered up by some dedicated members of the Vintage Car Club of Queensland when the family advised, that they had to be removed or would go to the dump. These rescuers then laid in wait for a mug, foolish enough to take it on as a restoration project. That mug is extremely grateful that they did.

The parts were gathered up in high glee from beneath a house in The Gap where they had been stored. I saw only the name Alvis and only when I got it home, surrounded by rusty bits and pieces, a decrepit body and the realisation that this is the model that the others are better than, did I take stock of what I had taken on.

Rudimentary repairs to the body frame and doors showed that in the past the car had been rolled. In spite of this, there was enough to provide patterns to reproduce the original body frame.

The left rear hub had hit something hard enough to bend the rear axle, tearing the differential mounting on each side and breaking at least some leaves in the spring, as these had been replaced with "foreigners." Six of the teeth on the pinion were chipped or broken. This incident may or may not have also caused the twisting of the splined connection between the cushion discs connecting the flywheel with the pre-selective gearbox. It seemed incredible that this solid shaft twisted but the clock sized gears in the gearbox had survived.

I later found a few Firefly bits at the Beaulieu Autojumble on a visit to UK, which included a serviceable splined connector and its spiders.

The chassis was quite badly bent, both front and rear and to compensate for some of the front chassis sag (mostly caused by broken rivets), the radiator mounts had been moved to a higher position on the radiator frame, so that the radiator could mount lower and so achieve a better bonnet line.

One bright spot was the fact that the pre-selective gearbox, although much worked on, had remained in a single unit.

Much of the engine was disassembled, but fortunately the crankcase with the crankshaft, camshaft and rear end driving gear had remained together. The engine had previously thrown number four connecting rod. Bits of the lower extension on the block around number four cylinder had been knocked off and had been brazed back on. All four cylinders had then been fitted with dry liners. A considerable amount of the supporting body of the oil pump had been knocked off. Some of the copper oil pipes had been hit by debris and repaired by brazing. Happily there was no evidence of any damage to the crankcase itself. Number four connecting rod had been replaced with one from another model altogether. This rod resembled the others only in being the same length; different weight does not seem to have been a consideration.

These observations are not meant to be a criticism of any previous owner's efforts to keep the car going. Without them the car would undoubtedly have been scrapped; a tragedy too dire to contemplate.

To cut a long story short; over many more years than it should have taken, I was able to cobble together a going concern from the assembled parts, plus others gathered from all corners of the globe. That was, all except for a confusing piece of aluminium which came in the boxes of bits. This was eventually identified as being part of a lawn mower.

The "completed" and registered car was used only sparingly once it was going, doing service at family and friends weddings and occasionally being driven to work if I worked on a Saturday. The farthest it has so far been driven in my hands is from Brisbane to Noosa for my son's wedding.

Recent personal changes have led me to hope that for the few years that I have left and am able to drive, I could use the car more, hopefully for some longer journeys, however a number of things had to be considered before doing anything about this.

The head had never been modified for unleaded petrol, so for continued use, that was an essential item for attention.

I have never possessed the camshaft timer which is required to correctly align the crankshaft and camshaft sprockets. I made up one to my own design from the engine as I received it but I was never absolutely sure that it was in fact correct then. While it would have been possible to check the cam timing in situ, the camshaft and its bearings had been thought "OK for service" at the time of rebuilding the engine, but I now considered that for more extensive use it would be prudent to revisit this. Also at that time, the timing chain had been replaced with a new duplex chain, sourced from general industry, which has narrowed links, designed to enable it to drive around smaller sprockets. It was a slight worry that this chain, with extended use, may be more susceptible to stretch than the standard product, so also desirable that it be replaced.

The pistons installed in the engine are those intended for fitting to a Triumph Herald-

(I hear boos and hisses and see thumbs being jerked violently downwards; my only hope is that they send out the right lion)

I can offer a kind of "streakers defence" for this situation. The engine reconditioner who rebored the dry liners undertook to find pistons which would allow the minimum amount of metal to be removed, so at 69.3mm diameter the standard Herald pistons suited. As well as reboring the liners, he pinned each of them to the block with a rivet to ensure that they would not move.

The Herald pistons slightly larger gudgeon pin also caused the con rod little ends to be minimally machined out. This removed little metal, but cleaned up any internal nicks which may have been a future point of failure. The Herald pistons are slightly higher in compression height, so he machined a chamfer off the top of each of them, aiming to maintain the standard compression ratio. I believe that he made a mistake in doing this; machining the longer side of the chamfer down the side of the piston. Had the longer side been across the top, forming a domed piston they would have been suitable to retain. As it was done the top ring land was reduced, which I

considered may have endangered the top ring with more extensive use. With a new solid copper head gasket being thicker than the original, it needs all the compression it can get so I felt it desirable to also replace the pistons.

This obviously became an "engine out" undertaking; quite a big job when the body has been built around it.

When I originally rebuilt the engine, I made up a welded steel frame which allowed the crankcase to be turned to any position for the assembly work. After completing the initial rebuild and becoming more ruthless than I would normally be, as I was also facing moving house at the time, I passed this frame on to the late Bill French, who before his death was well known in the the VCCQ. I contacted Bill's family who confirmed that the frame still existed. It had been found to also be suitable for use with Riley Nine engines, a French favourite. I was able to arrange to borrow the frame back for my project.

With the engine out and disassembled, another minor problem showed itself. The 5/8"BSP aluminium plugs in the head and block, which had appeared sound at the original rebuild, were now badly deteriorated.

While Brisbane water would be no help, I put much of this deterioration down to the use of a copper water inlet (after all, the plugs were only eighty years old). This copper unit was made up when a firm of founders managed to lose my original aluminium unit, which they had to quote for casting a new one. Eventually I was able to get another serviceable inlet from Chris Cowdrey in UK.

After consulting a few more knowledgeable people than myself, I decided to replace all the aluminium plugs with brass. The decision to use brass was also supported by Northside Cylinder Head Specialists who did the head modification work and faced both the head and block gasket surfaces. They indicated that they were more comfortable with machining brass than aluminium in an iron base. I made two types of plug. The first type has four small holes on a half inch PCD for screwing them in, and a flange for sealing the external holes. The second had a small waist, below a pair of flats which enable their installation with a spanner, to be used in the machined surfaces. These could be easily cut off with a hacksaw blade after sealing and screwing in tightly prior to machining the surface.

Northside Cylinder Head Specialists also acid bathed both the head and the block and removed a fairly large amount of dross from the water jackets, which I had believed were pretty clear. I had not had problems with overheating.

They honed all the cylinders in the block and declared them to be good. They should have been, as the car had really only been driven a couple of thousand miles since the original rebuild.

The crankcase together with the camshaft and its bearings were taken to Wynnum Engine Reconditioning, an engine rebuilder with a reputation for doing good work on older engines. They declared the front and rear cam bearings good for further service. The intermediate bearing did show more wear, which is understandable as it is lubricated by oil run off from the overhead gear which will include any dirt collected on its way and delivered directly onto the bearing surface, while the front and rear bearings have a reservoir around them which can collect much of the grit before the oil gets to the bearing surfaces and also avoid a "dry start." Wynnum undertook to make and install a new intermediate bearing. This bearing was line bored using the front and rear bearings as guides. This firm also reground the operating faces of the cam followers which I gave them in a pine block to hold and keep them all in their correct order for replacement.

They also convinced me to have the camshaft itself ground as a "tidy up" only using the best existing profile, rather than nominate a new profile which would entail the removal of more metal. This was sent to a specialist for grinding while they did the bearing work.

With the crankcase finished and returned, it was given a complete pressure clean. Particular attention was paid to the oil gallery and passages which all had a cloth "pull through" applied a number of times to ensure that no residue remained.

I temporarily reassembled the sump and front cover on to the crankcase to repaint them with engine enamel.

Replacing the crankshaft showed up another problem. Before replacement I assembled it dry and checked the clearance with "Plastigauge." With the original shims in place this showed a desirable 0.0015" clearance when torqued to 60 ft/lb. When the shaft was then cleaned of the gauge material and reassembled with light machine oil on all the bearing surfaces and similarly torqued, the shaft was pinched tight and very difficult to turn.

When the engine was first rebuilt the bearing caps were machined, and machining marks are evident. I reasoned that the repeated pressure on this slightly uneven surface had crushed the light brass shims and pinched up the shaft. The shims consisted of two pieces, both measuring 0.0025" thick. I replaced all of these with new single 0.005" thick shims and torqued the cap bolts all again to 60 ft/lb once only. The shaft could then be turned satisfactorily.

The front and rear cam bearings and the camshaft itself were also carefully cleaned up and reassembled in the crankcase, using Locktite 510 flange sealant to seal the front bearing flange. The cam followers were then all replaced in the crankcase.

It was now the turn of the camshaft sprocket, outrigger distributor and generator drive, chain tensioner and new timing chain to be added to the assembly. The outrigger bearings, which had been renewed first time round, were washed out with white spirit and relubricated. The chain tensioner was similarly treated, with particular attention applied to the ratchet assembly to ensure that it was clean and working properly. I used my (very) homemade camshaft timer to set up the cam and crankshaft sprockets and could now verify if it was correct or not. I felt it necessary to check each camshaft lobe, as a story doing the rounds at the time was that of a local restorer having a rare (therefore read expensive) camshaft ruined by incorrect grinding. This was also a consideration in my agreement for the use of the existing profiles on this one.

I turned up a small brass insert which fitted in the top of the cam followers and presented a flat face on top which could be used to operate a dial gauge. I first used this same item attached to the dial gauge to apply a flat on to cylinder one big end bearing surface to find correct top dead centre. A piece of flat steel bolted across the centre of the crankcase provided a mounting for the magnetic base that supported the dial gauge.

I used a round cardboard engine timing attachment marked in degrees (compliments of a now defunct parts supplier). This was found to be too large to fit on the harmonic balancer. I temporarily replaced the flywheel on the rear end of the crankshaft, with a couple of bits of timber attached at the edges and at the centre and attached the cardboard timer to this. I fitted a pointer on the crankcase aligned initially on 0° with cylinders one and four webs at top dead centre. I did not try and preload the cam followers or attempt impossible standards of accuracy as the intention was only to ensure that the timing was correct and that nothing had gone seriously wrong with the camshaft grinding.

I set the dial gauge initially on minus 0.006" with the cam follower on the lowest point of the cam lobe to allow for the valve clearance, pushrod and rocker flexing. I was then able to tabulate the valve opening and closing points and maximum lift of each camshaft lobe

With the aid of a friend turning the crankshaft over with a long handle, the valve opening and closing points were recorded at the angle where the dial gauge indicated zero. The lift of each lobe was recorded at its maximum.

I was relieved to find that the timing was correct, and that each lobe had a similar lift. I used the data published in the Newnes supplement as my guide. Some wear was evident, as the inlet opening is now a little late. I would welcome any comments on this or my method of checking. I may or may not have done the right thing in maintaining the existing camshaft

Valve Timing Check

| Cylinder | Inlet | | Exhaust | | Cam Lobe Lift " |
|---|---|---|---|---|---|
| | Open Before Top Dead Centre ° | Close After Bottom Dead Centre ° | Open Before Bottom Dead Centre ° | Close After Top Dead Centre ° | |
| 1 | | | 50° | 10° | 0.241" |
| | 8° | 50° | | | 0.242" |
| 2 | 8° | 51° | | | 0.241" |
| | | | 49° | 10° | 0.243" |
| 3 | | | 52° | 11° | 0.242" |
| | 9° | 51° | | | 0.241" |
| 4 | 6° | 51° | | | 0.241" |
| | | | 50° | 12° | 0.242" |

specifications. Alvis changed the camshaft profile during 1933, on both the Firefly and the Speed 20. The later examples have increased overlap (15°, 55°, 55°, 15°). I have not seen a comparison of the performance of similar models with the early and later arrangements. I can only imagine that the latter would have marginally increased power, but may suffer reduced economy. Mine is the earlier one and I am stuck with it.

I then needed to replace the standard sized but modified Triumph Herald pistons. I had some trouble in convincing local suppliers of exactly what I needed. The previous suppliers did not recognise the original piston numbers and others insisted that I must need oversizes.

I was able to purchase a complete new set of standard 69.3mm diameter pistons from Rimmer Bros. in England fairly painlessly. I had earlier found a spare set of rings on eBay and purchased them. These came from a dealer in older car parts in Greece. I grabbed these rings in case I was unable to get new pistons and had to revert to the existing modified ones. The use of any other piston would have meant also replacing the con rods; undesirable with the poured big end bearings still serviceable.

I had noted that the piston skirts projected below the block extensions at the bottom of the stroke, and this had ever been so, even with the original Alvis pistons.

It occurred that I might be able to machine off the skirt that projected below the block, making them short skirted, like the Brisbane Broncos Cheer Squad, but nothing like as shapely. I believed that it would save some reciprocating weight and reduce drag on the edge of the cylinder. Any lubrication that the projecting skirt picked up would be more than made up for by the more generous oil apertures in the Herald pistons.

I proposed this idea to the engine rebuilders that I spoke to while I was getting the work done and their consensus opinion was "leave it alone, if it has been going OK as it was, don't touch it." These people know more than I do, so I left it alone.

I still believed that I would need to take a small chamfer off the top of the pistons, but nothing like the amount that had been removed before.

I assembled a new piston onto number one connecting rod, inserted it in the block which was temporarily assembled on the crankcase with the crankshaft number one web at top centre. With the big end of the con rod fitting snuggly on the bearing surface, I found that only the small rounded edge on the top of the new piston came above the surface of the block, and the top was still below the top surface of the new gasket. I then removed the gasket, built up a ring of plasticine on the top edge of the piston and with a couple of head studs in the block I temporarily put the head on and confirmed that there was still plenty of clearance, even if the gasket was replaced with a thinner one. This was a big saving, as after all the planning that I had done towards safely holding them in the lathe, I had no machining of the pistons to do at all.

As only a small mileage had been covered since the original rebuild, there was a temptation to use the original gudgeon pins which had a small groove already ground in them to enable the pinch bolt to pass. I found that there was a small but measurable difference between the older and the new gudgeon pin diameter of about 0.0005." I decided to use the new ones which meant grinding new grooves in them. I made up a small sheet metal guard which would clip around the pin to protect the working surfaces. This had an elongated hole in the centre to enable the groove to be cut using a high speed hand grinder. I removed only enough metal to enable the pinch bolt to be inserted.

I fitted the new pistons to the con rods using new tab washers on the pinch bolts. These were tightened only firmly, not with undue force which could lead to future failure. I have no desire to see any of the rods become disgruntled and cease working as part of the team, burn their union card and attempt to strike out on their own. The evidence that this has happened before is a little frightening as much more damage could have happened than did. Next time may not be so lucky.

I fitted the new rings to the pistons and inserted them into the block from the bottom, with the ring ends arranged away from the con rod apertures and with the top ring ends arranged away from the exhaust valves. I used a small home-made ring compressor to fit these rather than a commercial unit as this enabled the rings to be compressed a little smaller into the slight relief at the top of the Triumph Herald pistons and so fit easier.

A piece of 45 x 19mm pine timber bolted along the top of the block was useful both for lifting the block and preventing the pistons from being pushed through the top while the con rod big ends were being bolted to the crankshaft.

The mating surfaces of the block and crankcase were cleaned with white spirit and a small line of Locktite 510 sealant was applied to the block surface only. Using the piece of timber 'handle' I was able to place the block squarely on the crankcase and then bolt it down. Using a small torch directed through the pushrod aperture, I could then check that the oil holes to the camshaft bearings and oil pump drive were clear and I could remove any small beads of sealant from these before they set.

The big end shims had previously been replaced with a single 0.005" shim as per the mains. These were reused and the bolts tensioned to 35 ft/lbs. I found it necessary to swap a

few of the big end castellated nuts in order to have the slots index with the holes in the bolts at this tension, so the split pins could be inserted.

As previously mentioned part of the original damage that was done by the thrown con rod was to the oil pump. When originally working on the rebuild, I had attempted to refurbish the original oil pump. I had new aluminium welded in to replace that which had been broken away by the recalcitrant con rod. Unfortunately the welding caused more distortion of the body of the pump than expected. I was able to buy another worn oil pump from England at that time. This must have come from another, probably earlier model as the driving shaft is considerably thinner. My friend, well known MG man and at that time workmate Owen McNeill, did a wonderful job of boring, bushing and fitting 'my' shaft and pinions to the 'new' pump body. All this was done on his little Myford Super 7 lathe, a really great pierce of work.

The original oil pump body remains a future "wet day" project; fairly difficult to reclaim but by no means impossible if one is required in the future by my car or another.

I had been concerned about the engines oil pressure for some time. When previously driven I had noticed a pressure reduction at low engine revs. Last year I had to get the car going after it had been laid up for a number of years, to use it for my daughter's wedding. From previous experience I suspected that the low pressure may have been caused by excessive big end clearance so I had taken the sump off and inspected and measured them before restarting it. I found them all to be in good condition, and oil clearance between 0.001" and 0.0015." The old 2 x 0.0025" shims were replaced with single 0.005" shims at this time, only because they looked tatty and some breaks were evident.

I had now also checked everything else, so the only thing left to check more closely was the oil pump itself. All that I could find was a little backlash between the pinions. Clearance to the body and end clearance was fine. New pinions which appeared the same were listed in the pre-war spares on the Red Triangle website. I made enquiries and found that only one of the pinions was available immediately, so I decided to replace the pump as it was at this time and try some different oils first. If it is necessary to again remove the oil pump in future, it is accessible by removing the sump only.

Replacement of the head is a relatively straightforward job. 'Hylomar' was used to seal the new solid copper head gasket and I made sure that the transfer port faces on the head and block were in line to ensure a good seal. I also checked that all the longer head studs, which also hold the rocker assembly, were in the right places.

I tightened the head nuts down gradually and evenly in the order given in the Alvis handbook. I left the little cotter pins which locate the rocker shaft loose until the head was tightened down, as the rocker shaft holding brackets need to be tapped slightly fore and aft to allow all the head nuts to be tightened. I tightened them down three times, left it overnight and tightened it down again.

To replace the pushrods the valve springs need to be compressed so the open pushrod end can be fitted to the rocker ball. Not having a genuine tool, I had to make one from a piece of timber and a bent 1/4" bolt. I found that this worked well.

Replacement of the lower chain case, sump (with the primary oil filter) and upper chain case are relatively straightforward, but of course Murphy was watching and sniggering.

With all of the above installed and any excess sealing material cleaned up, the flywheel and gear drive could be added. All went well until replacement of the final engine part, which was the bell housing. Of course one of the studs connecting the bell housing to the upper chain case pulled out as it was being tightened. As this is a family publication my remarks at the time will remain unreported.

For an instant I considered drilling it out in situ, however the temptation was resisted and the bell housing, drive plate, flywheel and upper chain case were all removed. The upper chain case was cleaned of all the sealer, set up on the drill press and the damaged 3/8" BSF hole drilled and tapped to 7/16" BSF. A new 3/8" – 7/16" stepped stud was turned up and installed in the chain case.

All the mating surfaces were again cleaned and the chain case replaced. The flywheel and drive were again replaced and finally the bell housing was successfully bolted on.

I replaced the starter motor complete with its connecting cable before the engine was returned to the chassis. This cable is difficult enough to connect and tighten with the assembly out, given the small area that has to be worked in, it is almost impossible once in place.

With gearbox attached and the assistance of a couple of extra hands and a hired lifting rig, the engine was returned to its accustomed place, resting on new rubber cones and bolted down.

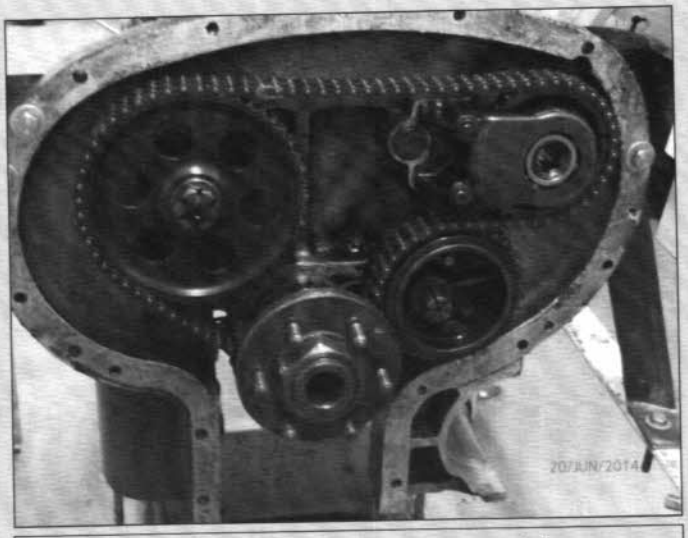
I had purchased new manifold gaskets but found that I had to trim the holes to index correctly with the ports. Not a huge job, but an annoyance when so close to completion.

With the majority of the auxiliary equipment on, but before the radiator and larger body items were replaced, I filled the sump with Penrite Running In Oil and the gearbox with Gear Oil 30 and started it up for a few seconds to make sure there were no disasters lurking to strike. All appeared to be in order so reassembly went ahead.

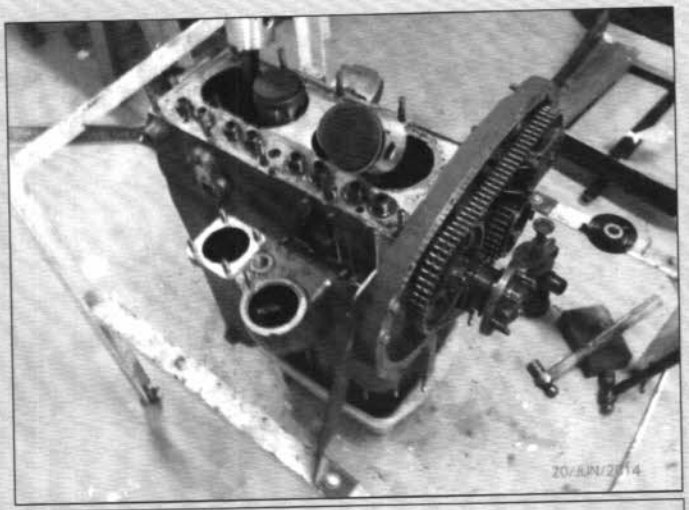
One item that I have never possessed is the water drain which goes in the hose between the radiator lower outlet and the engine inlet. This allows virtually all of the water in the cooling system to be drained. Before fitting the radiator hoses, I made up a facsimile from aluminium machining bar and fitted it, as I want to replace the coolant after a bit of driving just to get rid of any rubbish that might have collected from my work.

Once completed and checked over it was time for its first run with its new gizzards. I went from my home in Albany Creek to Aspley to collect a mate and up my favourite test track, which is the fairly hilly drive to Samford Village and return. Even before any serious attempt at tuning, better hill climbing is evident so the exercise was worthwhile as this was always a problem when mixing with modern traffic. Of course there are always bits and pieces to do but at least this does promise a more useable car in future.

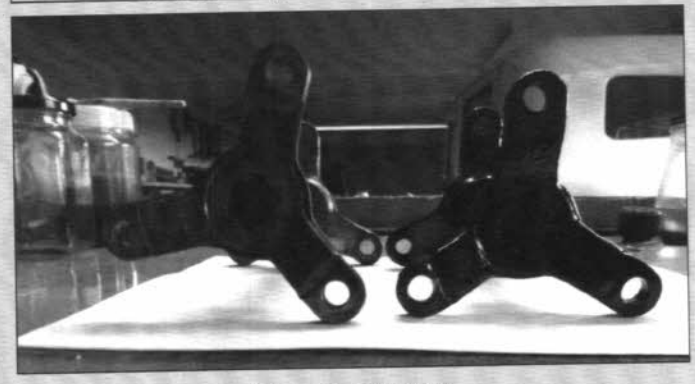
Channelling the children's story, I have come to think of the Firefly engine as "The Little Engine that Could." It could survive its internal haemorrhages; it could survive replacement of its components with foreigners and it could even survive being worked on by a mug.



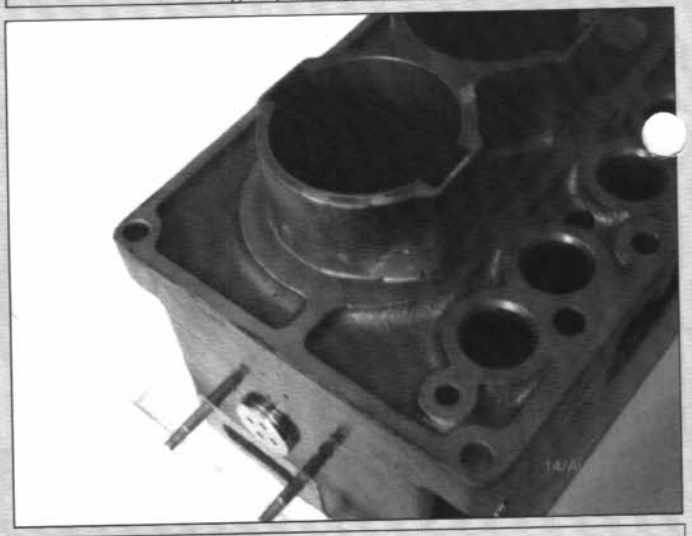
*The didgy timing chain Note the narrow links*



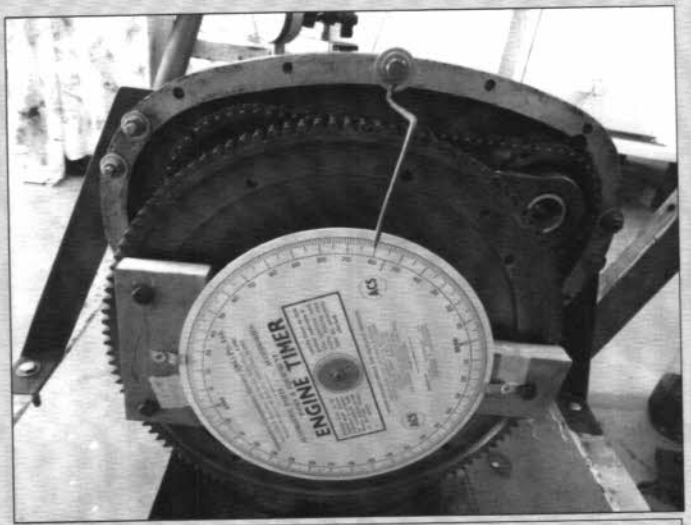
*Engine partially pulled down*



*The twisted drive link*

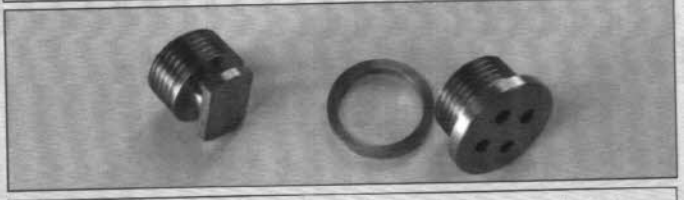


*The damaged block - brazed and dry sleeved*




*Temporary flywheel attachment to carry the timer*

*Dial gauge set up*

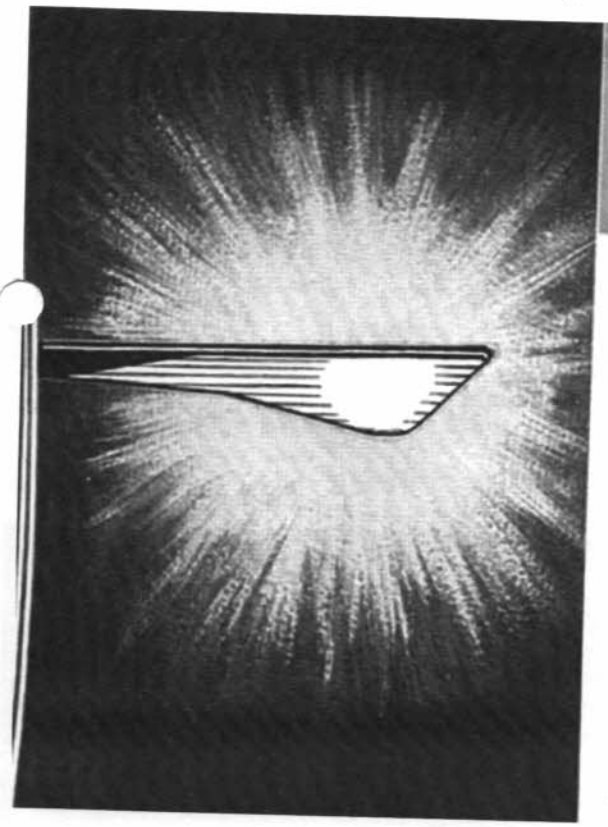


*Brass plugs - left for machined surface. Right for external apertures Left: the pistons - an original on the left. Centre - first rebuild with chamfer. On the right, new piston now installed*

# TRAFFICATORS

Trafficators were popular up until the late 1950's. The advent of corner mounted "blinkers" especially in the 1960's gave impetus to designers to make a more modern and streamlined way of indicating direction. Trafficators rapidly became both out of date and out of favour.

That said there was also an attempt to make the trafficator flash thereby allowing one to keep up with the more modern motoring fraternity. The advertisement below is one such example.



**FLASHING TRAFFIC INDICATORS**

**AS APPROVED BY THE MINISTRY OF TRANSPORT**

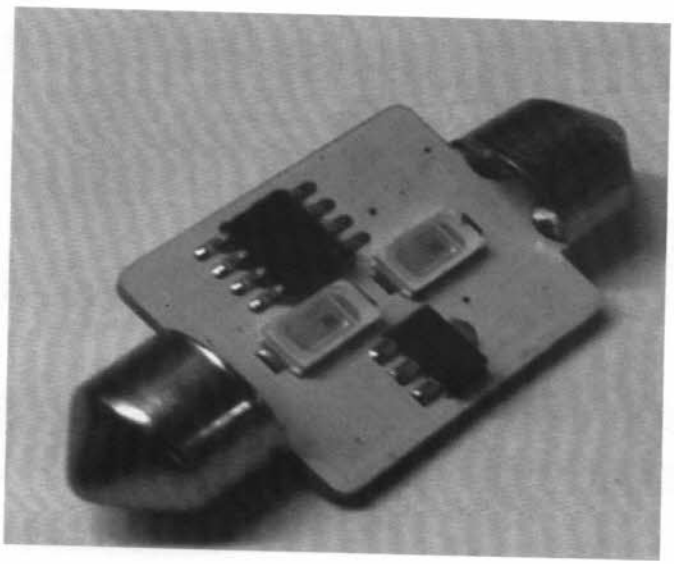
Motorists anxious to change over to safety-first signalling can do so quickly, easily and inexpensively with the Plansel Flashing Trafficator Set. This ingenious idea saves the cost and trouble of a complete new installation, needs *no* extra wiring, causes *no* extra strain on batteries. It consists of automatic control unit filaments enclosed in special tubes designed to fit *all* standard traffic indicators.

Can be fitted in a couple of minutes without rewiring. Suitable for 6 or 12 volt. A really good selling line—retailing at only 18/6 (inc. P.T.) the Set.

PLANSEL PRODUCT

CREATORS LTD., *Plansel Works . Sheerwater . Woking . Surrey . England*

This was a relatively inexpensive solution to the problem.
Until recently for those of us who did not want to attach modern lens units we had to work out some sort of "Heath Robinson" system of relays and indicator "cans" concealed in an inconspicuous location in order to make our trafficators flash.



Until now the simplicity of the "Plansel" globe had eluded us. I am pleased to see that a solution, has been found. With the aid of electronics and LED technology a modern version of the "Plansel" globe is now available. The description is really the same as the one in the advertisement above. The picture left, shows the new version.

The manufacturer calls the product a "**flashicator**" bulb. They further state that the unit is available in both 6 volt and 12 volt (bi-polarity) versions and will suit most trafficators including those manufactured by Lucas and Trico.

Readers can explore this exciting new option by viewing the makers website at : http://www.dynamoregulatorconversions.com/ This website also displays the range of their products. One is tempted to perhaps go further and to replace the insides of the mechanical control box with a modern solid state voltage and current regulator. A range of low current lamps featuring LED technology is also showcased.

For those who may be interested as to the effectiveness of the unit can view two short video clips at:
https://www.youtube.com/watch?v=4nr59zPRIsA and https://www.youtube.com/watch?v=VAWdy4qrhso which show the unit operating in day and night conditions.
Given the development and manufacturing costs, the price of fourteen pounds per pair is quite reasonable.

I have now installed both units and can attest to the accuracy of the video clips. The "flashicators" work really well and are worth the cost.
Isn't it nice to find a product that allows us to keep our cars in period condition as well to {nearly} meet modern motoring expectations.

Richard Wallach
2014

# ALVIS PEOPLE BEHAVING ~~BADLY~~ WELL!

*Marg Lang working on the Lang Speed 20*
*(still a way to go, but getting there!)*

***If your advertisement appears on these pages and is no longer relevant, please notify the newsletter editor.***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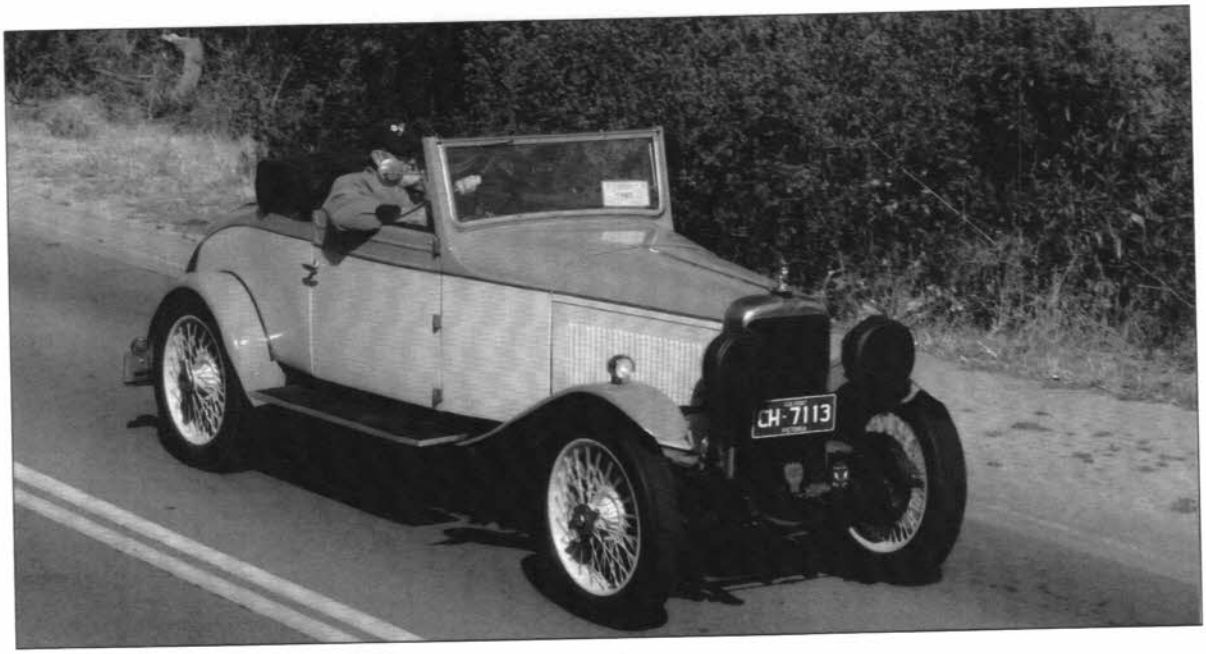


**FOR SALE** 1932 TJ12/50 Doctor's Coupe. Engine 3884 chassis 9367 body 14223. Engine & body rebuilt 1997-8. Runs well. Last 12/50 to come to Australia through an agent. $45,000 or best offer. CHRIS HIGGINS (03) 5986 1510