THE JAVELIN

OFFICIAL NEWSLETTER of THE JOWETT CLUB OF AUSTRALIA

MAY-JUNE, 1969

CIRCULAR No. 60 **May-June, 1969**

Published and Edited by J.D. Taylor, 1 Walker Rd., Mt. Waverley, Vic. 232-6331

President:	M.G. Dodd	3 Oberon St., Forrest Hill, Vic. 878-5097
Vice President:	W.A. Pearson	310 Cotham Road, Kew, Vic. Tel. 80-1738
Secretary:	P.J. Carboon	44 Tunstall Rd., Donvale, Vic. Tel. 842-3308
Treasurer:	W. Fock	138 Dendy Street, E. Brighton, Vic. 92-8037
Spare Parts:	A.J. Gray	17 Graham Place, Box Hill, Vic. 89-2559
Social:	L. Keane	6 Busberry Ct., Hughesdale, Vic. 569 9061
	L. Anderson	95 Lake Rd., Blackburn, Vic. 878 0040
Spare Parts Representative In N.S.W.:		
	Mr. B. Polain	50 Seaview St., Balgowlah, N.S.W. 949-1316
Hon. Vice President:	J. Coffey	Dispensary Walk, Bendigo, Vic.

EDITORIAL

My contribution to this issue will be brief because:

a) I am busy fixing an engine for one of our most enthusiastic members.

b) Some ‘contributions’ have turned up lately, and

c) Hon. President says its time to produce another ‘News Thing’, and what he says goes, (in one ear and out the other).

Dave Bargen, (Qld) responded to my plaintive wish for photos for our next Pictorial Edition and provided a description to go with them, but we will have to delay the photos until we get enough to fill a sheet, due to the economics of the printing process. Never the less Dave’s article is included without photos until the stock of prints accumulates enough to fill a sheet.

Thanks for a worthy effort Dave, and sorry your fellow members are slow in coming up with pictorial support. Next time maybe.

Incidently, we are indebted to Doug Anderson for the printing process, which he does gratis, and judging by the favourable comments re the last issue, Doug’s effort was well appreciated.

Paul Byrne is now the proud owner of the ex-Taylor P.E. and is now in a fair sort of flap about getting rid of a P.C. with a broken crankshaft. Members who want said P.C. or parts there-of had better jump to it as it is headed for the tip, due to the Landlord beefing about the increased Byrne Fleet. Paul’s address is 1001 Heidleberg Road, Darebin, and he will be happy to answer the phone if you dial 495957.

Arthur Willson has spent some time researching the reticular-tin aluminium situation, but as yet we haven’t reached any decision on whether this material will in fact be any better than copper-lead for our engines. We need more data and opinions on RTA bearings before we plunge some hundreds of dollars on this project.

We haven't got the cash at this moment anyway, which brings us to the distasteful business of Annual Fees again. If you didn't get the last Edition of the 'Javelin' it's because you're not solvent, and the Chief Letter Poster is taking a sterner view of this than I did, so cough up or dip out.

Had a visit from Eddie Wolf (NSW) last night escorted by Les Anderson, who is hosting Eddie during his stay in Melbourne. Eddie and I have known one another per Biro for some years, but we have never met before. So we had a short tour of inspection of my 'Office', and Eddie whizzed off with the Fock-C/case Rear Main Bearing Modification Tool and some part numbers, so you Sydney blokes are in for a blast on this in the near future, Eddie is for retaining copper lead bearings and quotes 80,000 miles odd as useful bearing life, providing 'good' oil is used and changed at 1,000 mile intervals.

Morris Dodd has exceeded this figure I think, and I have come close to it, so copper-lead presents a good case for itself at this stage, particularly as all three of us tend to pedal a Jav. fairly hard. Any dissenters?

Bill Fock has a P.C. engine and gear box for sale for about $30·00. The engine is worn, but contains solid tappets and Laystall shaft and the gear box is modified in the lock washer department, but could do with 'looking at'. Ring Bill on 92 8057, and his address is 138 Dendy St., E. Brighton.

Neil Creagh has propogated himself into the station wagon predicament too, and has therefor a 1950 standard Jav. for sale, a full description of which is included in this issue.

This time of the year seems a good time to talk about Carburettor Icing, and fortunately the latest copy of' 'Flat Four' from Our New Zealand confederates has an article on this topic, part of which I shall 'borrow', with thanks to their Editor. Having overcome this problem in the past I have added a few lines of my own.

The next 'Javelin' should include articles by Eddie Wolf on the well being of his V.W. Pistoned Jav. (Jup?) Mike Allfrey on Jupiter Restoration, and Arthur Willson on Engine Bearings. Any other comments on the bearing business will also be aired.

Don't forget to send prints or negs. of Javelins etc., and don't forget the next General Meeting at C.C.H. on -

August 8th and don't forget your Annual Fee.

Hoping I have not forgotten anything.

John Taylor – Hon. Ed. J.C.A

CARBURETTOR ICING

Most Jowett owners, at some time or other, have experienced an unaccountable loss of power – perhaps even a complete stoppage of the motor – which has just as mysteriously corrected itself after the car has been left standing for five or ten minutes. Many, perhaps, have not been aware of the reason for the stoppage, and have shrugged it off as 'one of those things'.

Nine times out of ten such an inexplicable engine stoppage can be attributed to a complaint – which is more common than most motorists seem to realize – known as carburettor icing. Strangely enough, carburettor icing does not occur in the conditions which lead to icy roads. It is most likely when the atmospheric Temperature is between 10 and 15 deg. F above freezing point, and the air has a considerable moisture content. These critical conditions of air temperature and humidity, together with the use of high-volatility petrols for efficient fuel utilisation in cold starting conditions, lead to serious ice formation inside the carburettor.

There are complex terms to describe what happens to petrol during evaporation. In brief, when vaporisation takes place, the fuel absorbs a great deal of heat from its surroundings, with the result that the carburettor takes on some of the characteristics of a domestic refrigerator. This leads to a considerable drop in temperature of the air passing through the choke and surrounding metal.

The next stage is that the moisture content of the incoming air, cooled below freezing point, turns to ice. At its worst this can lead to the build-up of an ice film in the choke tube, which not only upsets the metering characteristics, but leads to a loss of performance through a combination of lack of air and excessive richness. This is by far the most serious outcome, but before this point is reached there can be some faltering at part throttle as the idling and slow running jets become blocked with ice.

It usually happens that the driver, unaware of the power fall-off, slows down automatically, and then is unable to restart. By this time the driver has got out of the car to look for the presumed loose connection on the low-tension side of the ignition circuit, the ice has melted and the temporary refrigerator in the carburettor is put out of action. The driver is very surprised to find that the engine restarts faultlessly once more.

Fixed chokes seem more succeptible to ice formation than the constant vacuum or variable choke type of S.U. carburettor. The explanation of this is that the constant flutter which occurs in the dashpot of the S.U. results in the needle within the jet breaking up any ice formation before it becomes troublesome.

Editor's Experience

Your Editor had his first experience of carburettor icing the day after had bought his Javelin! He was en route from Wellington to Napier for a long weekend (Queens Birthday, 1960) and had noticed the engine losing power for some miles. Eventually, about five miles from Hastings, the car came to a halt. What to do? Where did one start on these funny-looking flat engines? After some minutes of head scratching, and attempts to look knowledgeable, he did the only thing he could think of – switch on the ignition and press the starter button. The engine started and ran perfectly.

The second experience occurred in 1965 (returning from the inaugural meeting of the Auckland Branch), when motoring briskly down the Manawatu. The car had just passed through a bank of wet green fog at the point where the highway crosses the Manawatu river, between Foxton and Levin, when the motor began to falter, lose power and become rather rough. Soon it had only enough power to pull the car in low gear, and then it quit. After a few minutes groping in the dark, the motor was persuaded to start, albeit very reluctantly and on two cylinders (both on the same side of the engine, if the horrible shaking was any guide) the car crawled into Levin. An inspection under a sodium street lamp revealed two carburettors sparkling with ice. However, after ten minutes or so the ice melted and although the motor was 'missing' somewhat, it became possible to proceed. Within a couple of miles everything returned to normal.

It is worth recording that the Padman PL engine which has covered 22,000 miles in the Editor's Javelin has not given the slightest trouble with icing. It seems that some engines are icing-prone and others are not.

Overcoming Icing With Jowetts

The Editor's experience with Javelins and Jupiters seems to indicate that some individual cars are more prone to icing than others. For example, his first Jupiter, with Solex Carburettors, did not give any trouble in this respect, whereas the Jupiter fitted with the R.1 engine and Zenith 30-VM carbs. was particularly susceptible. Likewise, his Javelin's original engine iced up on at least two known occasions, whereas the present Padman PL engine seems quite unaffected by atmospheric conditions conducive to icing.

In view of the fact that blanking-off the second Jupiter's small side grilles reduced the tendency toward icing, one wonders whether, under certain conditions, a radiator muff covering at least the lower part of the front grille may overcome the problem so far as a Javelin is concerned. Of course, one would have to exercise discretion here, as covering the grille may result in an overheated engine, even in winter. It is well known that some Javelins are rather touchy about any interruption to the air flow through the radiator, and overheat quite readily whereas others simply refuse to exceed the normal working temperature of 75 deg. F (C), even under provication.

Perhaps members who have experienced carburettor icing problems, and who have taken steps to prevent a recurrence, could write and give us their ideas on the subject. A summary of such ideas would undoubtedly be of value to Jowett enthusiasts generally, and may be a means of saving someone a great deal of in-convenience and unnecessary worry. How about it? Let's have your thoughts on the matter.

Footnote: Although our New Zealand Colleagues quote 10-15 Deg. F. as a suitable temp. for icing, I have experienced it in Melbourne between 50-40 deg. F. in suitable (unsuitable?) conditions. It probably occurs partially more often than noticed, a sluggish engine being the only indication at the time. In the past I have cured it in 3 ways:

1. A sheet metal baffle attached under the water transfer pipe nut to stop the direct blast of cold air on the Carby throats.
2. Removing the gaskets from beneath the Carby base and the Carby adaptor block to allow engine heat to climb up to the Carby. It is possible to have them ice up before the engine warms up, but a short stop will melt the ice and it will not re-occur.
3. A sheet metal clip type baffle on the bowl of the Carbys to stop the cold blast, as in l.

In both these cases 'sheet metal' can be interpreted as 'Jam-tin' as it can be easily shaped to miss the grille, spark plugs etc. In the gasket removal case, the mating faces have to be lapped flat on plate glass, or the like, using wet and dry paper, and gasket cement should be used sparingly, as it can insulate almost as much as a gasket if applied too thickly. – J. Taylor.

JAVELIN RESTORATION AND MODIFICATION – By D. Bargen (Qld.)

My Jowettering started one day as I was driving home from work and saw »his 'queer' looking 'Continental' car in someone's back yard. Always being intrigued by 'queer' cars, a mate and I decided to see if we could get it for a 'bomb'. Before this I had never even heard of a Javelin. I started hearing a few things about them as I enquired around and because of their rarity I decided to restore one; never guessing what I was in for! Before long I owned five of them in varying conditions, a P.C. deluxe being the one I started work on. After a while I disposed of the others after getting what good there was out of them. Six months solid work on the P.C. and I was able to register it.

Firstly I stripped it to the shell, and then started to work up from there. I replaced the floor with marine ply, reconditioned the upholstery and door panels, replaced the window channelling, painted the window trims with gold hammertone, replaced the back and front window rubbers (no chrome trims now) put in new hood-lining and wind stops on the doors, repolished the wood dash, I fitted Universal wiper arms and rubbers and grummets, chromed the grille, fitted sealed beams & quartz iodine driving lights. So as to be able to use flashing indicators I replaced the parking lights with Austin Lancer lights and used the brake filaments at the rear (sim. to FE, FC Holdens) to avoid extra lights. I replaced the clock with a Tachometer (fitted into clock case) and fitted a clock from the earlier models, and a vacuum guage on the top of the dash. I painted the car British racing green and found out later that this is one of the Jowett colours.

The Chassis height is down 1½-in. all round, and I completely re-bushed the front and rear suspensions. I was able to obtain new rubbers for the transverse rod, and replaced the lower swivel pin bush with Ford rubber bush 5781A.

The Diff. was whining badly, but I managed to scrape up enough good PC diff. parts to have it reconditioned. With the wheels and tyres described later and heavy duty EH Holden shock absorbers on the rear, the car handles extremely well, especially at high speeds. I am considering modifying the front shockers too, which I find even new are quite bouncy.

The wheels are now 14-in. dia. & 6-in. wide on the rear and 13-in. dia. & 5½-in. wide on the front. Both are one piece safety rims with my centres turned out and welded into them. On both the distance from the joint of the rim and centre to the outside of the rim is 1½-in. The tyres I am using are Veith Radials 185 x 14 and 175 x 15 resp. The reason for using 13-in. wheels on the front was to try and avoid the tyres hitting the top edge of the guards on lock, going over a bump. I now have some solid blocks of rubber out of which I hope to make a couple of more solid front wheel buffers. The others lasted no time at all. I think it was because of the style of Shocker. If I were doing it again I'd use 14-in. all round, as with the 13-in. wheels the steering arms had to be bent in slightly to stop the knuckle hitting the rim. This of course effects the steering slightly on turning, but does not make it heavy. Also the rear guards had to be spread a little to accommodate the 14-in. wheels. The min. clearance between the tyre and guard is about ¼-in. but as yet it has not touched.

The brakes and master cylinder needed complete overhauling, only 2 of the slave cylinders being any good, but these were easily obtained. I have fitted a PBR power booster, and with this and the large amount of rubber on the road, stopping is the least of my worries. A new clutch and pressure plate were easily obtained.

With the motor, apart from generally going through everything including generator, starter motor, carbies etc. some modifications were:

100 thou. off each head; i '_p V T

$^{1}/_{32}$-in. oversize austenitic x 10 steel valves with new springs.

Laystall shaft.

Holden (wide belt) harmonic balancer pulley. (Part of the timing case had to be ground away to fit it and also the front of the shaft turned to suit).

Camshaft ground to 27-64/65-26.

8 lb off the flywheel. Completely balanced.

Sports coil.

All there made it go really well. It was pretty well comparable with a 179 HD Holden station wagon if that is any guide. I once had the tacho on 6,200 rpm, but was not game to go higher. I think it may have gone quite a bit higher, but am not sure.

Also I bushed the cam follower holes and fitted Ford V8 O/H valve cam followers, in an attempt to get more pressure to the bearings. The heads were ground down to suit the hole diameter. The results are shown later.

I also had trouble with oil leaks from the rear timing case cover, but remedied this by fitting Helicoils into the block and really bolting it down tightly.

On the recent trip back from Melbourne, the oil pressure dropped from 65 lbs. – 25 lbs/in. and a big end knock gradually set in.

Also from the start there was a strange tapping in the motor with an irregular beat. By the time I got home the big end had damaged the shaft to an extent that it needed regrinding. On stripping the motor down several things were revealed.

1. The block was corroded to such an extent around the edges that water was leaking out past the head gasket. Fortunately I have been able to get a new block (about the last in Q'ld I think). If anyone can give me some clues as to how to stop this corrosion, I would like to hear.
2. The cam followers were causing the tapping. Apparently sometimes the edge of them were touching the block at the end of the outward travel. The faces also were incorrect for the cam and caused severe wearing of the cam lobes – hence cam regrind and back to standard cam followers.
3. All the big end journals were worn especially the one which went. This one had to be built up with weld and apparently Repco won't guarantee a welded shaft as it could break. So I am just waiting to see how it goes.

The general opinion as to why they went is that it was a combination of high compression, over-revving, over advanced timing and possibly foreign particles in the oil. This all occurred after about 20,000 miles.

Anyway I am nearly mobile after the car has been sitting for several months. This time I am trying an electric petrol pump, capacitive discharge ignition, larger generator (present one can't cope with the extra driving lights) and an electric overdrive – we'll see how they go this time.

Another thing I have changed is the tail shafts. I replaced them with shortened Austin A40 shafts, incorporating all metal universals. I had special flanges for the gearbox and diff. made up to suit. I also used one of Morrie Dodd's mid-ship bearings. This arrangement has worked out extremely well and when balanced there is no sign of vibration at any speed.

These are the majority of the major works and changes I have made, plus a multitude of other time consuming small things.

Something that has occurred several times, and was mentioned in the last newsletter, was that the ring gear comes partly off the flywheel.

Anyway that's enough for now, hope you are having a better spin than I am.

David Bargen. (Queensland).

GOOD HOME REQUIRED FOR WELL KEPT JAVELIN

One of two Javelins for Sale due to family out-growing the car, necessitating a larger first car.

Details:

1950 Standard model, body in good condition, painted VW Gulf Blue, fitted with VW tail lamps and flashing turn indicators.

Engine has Laystall crankshaft, solid tappets, larger diameter oilways and pipes, and an oil cooler.

Modified BMC new pistons and rings, and re-conditioned clutch, all fitted last year.

Also fitted with windscreen washers, all rubber front suspension, full hydraulic brakes (not long relined) and a late model rear axle.

Owner can be persuaded to part with this excellent machine by someone proffering money.

Any reasonable offer considered.

Ring: Neil Creagh – Work – Geelong 70251 Ext. 327; Home – Geelong 455876. Address – 54, Bellevue Avenue, Highton. 3216. Note: STD code for Geelong – 052.
