

THE JAVELIN

OFFICIAL NEWSLETTER

of

THE JOWETT CLUB OF AUSTRALIA




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PICNIC OUTING TO EXFORD WEIR

Sunday 24th November must have been the wrong day for a club run because so few turned up. I was unable to attend myself and am told by Mr. J.W. Dodd that the attendance was most disappointing.

Its a pity that more members can't find the time to attend these outings as they are always at some pleasant spot in the country and provide the opportunity to discuss the old car problems and performances etc.

CHRISTMAS SOCIAL EVENING

Again the Committee found very little response to the Christmas Social Evening – there being only three members other than the Committee attending.

However, an interesting evening was enjoyed by those present with films of Australian National Line and the Kew Gardens etc. Mr. J.D. Taylor answered several questions on technical problems of Jowetts and quite a lot of discussion took place about broken crank shafts owing to two certain members recently breaking same.

After the meeting and films we moved on to a very fine supper. Although a good nights entertainment was provided by the Committee, the poor attendance did not warrant so large a hall and the abundant supper was not eaten.

The Javelin . . .

It seems obvious that members are not interested in these functions organised by the committee for everyone's enjoyment. I would appreciate any suggestions or improvements in these matters and so make our task a little less disheartening.

SERVICE

Ormond Central Auto Port of 423 North Road, Ormond are prepared to service and repair Jowetts and are known to have had experience with same.

NEW SOUTH WALES BRANCH

Mr. Paul Robinson has written to say that the first meeting of the New South Wales Branch of the Jowett Club of Australia was held on 3rd December at the home of Mr. Bruce Polain. Eight very enthusiastic members attended and they are looking forward to further meetings and outings.

Mr. Robinson's address is Woodstock Avenue, Rooty Hill, N.S.W. and Mr. Polain resides at 50 Seaview Street, Balgowlah, for anyone interested in helping to organise or join the New South Wales Branch.

COMING EVENT – CLUB RUN TO VINTAGE CAR CLUB GYMKHANA

At the invitation of the Vintage Car Club Mr. J.W. Dodd attended their last gymkhana at Kalorama. With bending races – slow races etc. and lots of fabulous type motor cars, this would seem to be a date to keep. Mr. Dodd also said we might be able to participate in some of the events.

This will be held in March and will give further particulars in next issue.

ELECTRICAL FAULT FINDING IN YOUR CAR

At some time in the life of your car you will have the experience of a fault in the electrical system. You are out at night, the lights go out, or your tail light does not work, or the stop lights (compulsory now) don't work. And you are one of these people who has only a very rudimentary knowledge of electricity. This latter remark, I am afraid to say applies to most people and particularly motorists. Some people have found much to their pain and sorrow that tampering with things electrical, that they know nothing about, can be a very expensive business.

In this article I will try to explain some of the principles of automotive electricity which is not dangerous, to enable some members to rectify simple faults, which can happen at the most inconvenient times.

Most car electrical systems now operate on a twelve volt battery, a few still use six volt, particularly the older American models. Some use the positive pole (plus sign) and earth the negative (minus sign), others use negative and earth the positive pole. The Javelin has a twelve volt system, with the positive pole earthed.

The simplest electrical circuit in a car is represented by a battery, a switch, and a lamp. In this circuit the current flows from battery negative, via switch when closed, through lamp and returns to battery via the chassis, which acts as the other wire. All circuitry in a car is based on the above simple arrangement.

Most faults in the electrical system are caused by:

1. an open circuit
2. a short circuit
3. a failure of lamp, which is virtually fault 1.

When a lamp fails to light, the first thing to do is to change it. If this does not rectify the trouble, check for loose connections, broken wires etc. Make yourself a test lamp consisting of a lamp, of socket and two lengths of wire (each about 3 ft. long) is sufficient. Connect one of the leads to a convenient point on the body or chassis, known as 'earth' and, with the aid of the car's wiring diagram, you can follow the wiring out. The wires are coloured to make identification easy. By connecting the other lead to 'battery' you will know if the current is reaching the lamp. It could be a loose connection in the socket. This is an easy way of proving this. The fault where a wire is 'shorted' to the chassis or earth is the most dangerous fault, it could cause a fire. A car battery, when short circuited can give a very heavy current for long enough to heat up the particular wiring concerned and start a fire. If your wiring is in good order, and your fuses are correctly rated, you will not have

The Javelin . . .

a fire. The fuse will 'blow' instead. However, people have used nails to replace a fuse and that is where the trouble begins.

FUSING:

If your entire electrical system goes dead, or a large portion of it, check your fuses. If one is 'blown' try replacing it, it could be fatigue in the fuse. If it 'blows' again immediately you will know there is something amiss. It is a good plan to remove each fuse in turn so that you know which fuse controls what part of your electrical system, e.g. one may control your head lamps, another your flashes. another your panel lights etc. Keep a note in your glove box so that if one 'blows' you have a fair idea in which section of the wiring the trouble lies. Another thing to watch is the terminals on your battery. These should be clean, tight, and inspected regularly. Fuses in the Javelin are located in the voltage regulator which is under the bonnet.

VOLTAGE REGULATOR:

This device which automatically adjusts the charging rate of your generator, depending on the state of your battery and normally does not require touching. Unless you know what you are doing – **DON'T TOUCH IT!!!** It requires special equipment to adjust it. If however, you feel that your battery is not holding its charge as well as it should, check if your fan belt is tight. This fault causes more flat batteries than we could count. If the generator or the regulator need attention and you think you know all about it, **DON'T TOUCH IT!!!** Take it to an expert who does know.

Finally, always carry plenty of spare lamps of each type, fuses, a test lamp {described earlier}, a spare length of flex or automotive wire. These could help you get home if you are stuck out on the road at night. A trouble lamp is another essential thing to keep in your car, even if your only trouble is changing a wheel.

J.G. McLEOD.

The following article is reproduced from the 'Rolls Royce Owners Club of Australia' (Victoria Branch).

COOLING SYSTEM CORROSION

We are all familiar with the effects of corrosion of the water ways of our cars; the extent of the corrosion and resultant problems such as over-heating varies considerably with the model and the treatment or neglect the system has received.

In 1958 in London, there was a symposium on Corrosion of many types in different fields of Engineering; that section dealing with Motor Vehicles has been published in book form under the title 'Protection of Motor Vehicles from Corrosion', copies of which are available from the club's library. This book deals with corrosion of cylinders and moving parts, exhaust systems, chassis, body and electrical as well as the cooling system.

One of the papers read at this symposium was presented by Dr. A.J.P.B. Squires of Rolls-Royce Ltd., and here an attempt has been made to summarise the main points of practical significance to members.

The original investigation by Rolls-Royce Ltd. was undertaken because of the formation of insoluble matter resulting from corrosion in the cooling system of the Merlin Engine during the last war, restricting the flow of coolant particularly in the radiator and reducing the efficiency.

Ethylene Glycol in various concentrations with water is the usual antifreeze used in aircraft piston engines and motor cars; the coolant being in contact with several metals comprising aluminium, brass (copper and zinc), solder (lead and tin), iron and plating (copper, nickel; chromium),

Corrosion occurs by two methods:

1. The action of acids (mainly glycolic acid) produced by the oxidation of the ethylene glycol by dissolved oxygen at 'hot spots' in the cylinder head and block; the acid attacking some metals, e.g. aluminium, more than others. The presence of copper ions in the liquid increases the rate of acid formation. The more acid (lower pH) the coolant becomes the more rapid the corrosion; however, above pH 6.5 the rate of corrosion is slow.
2. Electrolytic corrosion of aluminium and iron resulting from other metals (in particular copper) being in contact with them, either direct or through another electrical conductor, thus establishing a small electrolytic cell. This action is more rapid in acid solution.

Insoluble matter, predominantly aluminium oxide, resulting from the corrosion is at first suspended in the coolant but eventually settles out in the block, head and radiator and, in addition, produces deposits on the walls of the system. These deposits reduce the heat transfer, causing increased metal temperatures, distortion

The Javelin . . .

and ultimate cracking of the head or block. Also particles may cause obstruction in the tubes of the radiator. Erosion is greatest where the coolant velocity is highest; e.g. water pump and bends in pipes.

Adding Triethanolamine Phosphate (TEP) has a buffering effect slowing the development of an acid solution and it also produces a phosphate coating on the iron surfaces and helps prevent the formation of rust. In addition it acts as a water softener precipitating soluble calcium and magnesium as phosphates.

Adding Sodium Mercaptobenzthieol (MaMBT) further reduces corrosion as it reacts with copper producing an insoluble film and therefore reducing the electrolytic corrosion. The MaMBT separates out from the solution on cooling, but it is readily distributed through the system when the engine is running and gradually redissolves when the engine is hot.

The present coolant used and recommended by Rolls-Royce Ltd. for motor vehicles is 20% by volume of DTD 779 (Ethylene Glycol stabilised with TEP and H&KBT. After 12 months use it should be drained and replaced or, alternatively, if the pH has not fallen significantly, the loss of MaMBT may be replenished by the addition of the 1 fl. oz. per gallon of DTD 830 concentrate (containing 15% MaMBT).

CLEANING

Where an engine has been used for a considerable time with plain water as coolant before changing to inhibited coolant it is advisable to clean out any corrosion products already present, not only for the purpose of removing the deposits causing overheating but also because rust reacts with the TEP, and copper with MaMBT, thus robbing the coolant of its inhibitor content. The following method is recommended.

	Operation	Object
1.	Start the engine and run for 2 min. with existing coolant. Stop engine and drain off coolant immediately.	To remove liquid and insoluble matter before the latter has time to settle.
2.	Fill the system with 3% citric or tartaric acid in water.	To dissolve and loosen deposits.
3.	Start engine and heat to maximum temperature and continue engine running for 10 minutes.	To dissolve and loosen deposits.
4.	Stop engine and drain immediately.	To remove solution and sludge before settling out.
5.*	Fill with clean water and 1% non-foaming surface-active agent in water, allowing about a gallon to run straight through before closing drain plug.	To flush out.
6.	Start engine and heat to maximum temperature and continue engine running for 10 minutes.	To loosen residual deposit.
7.	Stop engine and drain immediately.	To remove residual deposit before settling out.
	Operation – Continued	Object – Continued
8.	Fill system with clean water, allowing about a gallon to run straight through before closing drain plug.	To remove surface-acting agent.
9.	Start engine and run for half-minute.	To remove surface-acting agent.
10.	Drain system.	To remove surface-acting agent.
11.	Fill system with aqueous solution of 20-30% DTD 779 glycol.	

* Any non-foaming detergent is suitable, e.g., 'Calgonite', 'Sun', 'Trix' etc. If anyone wishes to carry out this procedure I could supply a suitable surface-active agent.

The above investigation by Rolls-Royce Ltd. was relevant to the use of antifreeze coolant in Merlin Engines which contain a high percentage of light aluminium alloys. Most of us in Victoria do not need antifreeze in the cooling systems of our cars; further, it is known that the aluminium parts are subject to corrosion more

The Javelin . . .

than those of irons. However Dr. Squires showed that the inhibited glycol DTD 779 produced less corrosion than did water and gave protection to motor vehicle engine made predominantly of cast iron as well as to those made of aluminium.

To determine whether the inhibitors TEP and MaMBT present in DTD 779 would similarly inhibit corrosion when added to water without ethylene glycol: I have cleaned the cooling system of the P111 by the above recommended procedure and filled with water to which has been added the required quantities of TEP and MaMBT; a check will be kept on the pH, concentration of TEP and MaMBT and amount of suspended corrosion products.

John Glover.

JOWETT JUPITER FOR SALE!!

Tasmanian member advises that no he has a Jupiter Model for sale, Engine No. E1 SA 202 R. Car is fitted with very neat hard-top . . . Duco is black, red upholstery and carpet. Engine fitted with Laystall shaft; recent removal land checking of which disclosed main journals 1/2-thou. worn, big ends completely standard. Compression ratio just over 8:1. Sports Air cleaners, and oil radiator. Gearbox recently reconditioned (the parts for which were supplied by this Club). Rear-end and suspension is sound. Many Extras include original heater, radio, tachometer, 0-120 speedo, oil pressure and temperature gauges, water temp, and fuel gauges. Seat belts, new battery, tow-bar, 4 good tyres. The vehicle is currently registered until September next. Apparently the only thing that does not function 100% is the radio.

Owner wishes to dispose of this machine as he has purchased a large yacht and needs a more powerful car to tow same. This car is known to the Club as having been extensively reconditioned during the past 12 months. Owner will consider offer between £250 and £300.

Further details and history available from Mr P. Storr, Flat 2, 16 Osborne Street, Sandy Bay, Tasmania.

CRANKSHAFTS FOR SALE

Mr. Bruce Polain, of 50 Seaview St., Balgowlah, N.S.W. has 2 crankshafts for sale; one brand new, the other has been reground by the factory. The reground shaft is 30-thou. undersize on big-ends and 40-thou. under on mains, each shaft is complete with Vandervell bearings. Further details for price etc., available from Mr Polain;

N.S.W. SERVICE CENTRE

Mr. Bruce Polain advised recently that the N.S.W. branch of this Club has received excellent service from Mr. Spring of Spring's Motor Service of Blaxland, Eastwood. Telephone 85-1908. Mr. Spring is apparently thoroughly conversant with Javelins and is capable of rendering excellent service to owners.

SECOND HAND PARTS FOR SALE

Here is a list of Second-hand parts offered for sale by J.R. Marion:

Item	Suggested Price ea.
Series III boot lid (give your car the different look), colour silver grey.	\$5.00.
Series III rubber suspension. The ultimate. (Kerb side only)	\$5.00.
Fuel Tank.	\$0.80.
Windscreen PA-PD.	\$4.00.
PA Deluxe seats (less back seat cushion only). Red.	\$3.00.
PA bonnet light green quite fair order.	\$3.00.
Pair of rear doors, bit rusty no handles, light green.	\$0.50.
2 Javelin wheels, light green.	\$0.20.
Rear mudguards dark green, good.	\$1.00.
Manifolds both sides.	\$1.00.
Front exhaust wrap around pipe.	\$0.75.
Steering box good.	\$3.00.
Intermediate steering arm (idler arm).	\$0.80.
Steering link forged type (not fitted to early model, check yours).	\$0.50.
Sump	\$0.50.

Item – Continued	Suggested Price ea.
Front handbrake cable.	\$0.50.
Tow bar, standard models, light duty.	\$0.70.
Radiator	\$1.00.
PB grille fairly good condition.	\$4.00.
PB standard instrument panel.	\$1.00.
Voltage regulator control box.	\$0.75.
Soloids (starter).	\$0.20.
Trafficators	\$0.50.
Ash trays dash board type chrome.	\$0.40.
Inside door and window handles.	\$0.25.
Air vent flaps (with handles).	\$0.30.
Set of serrated conrods (Jupiter).	\$7.00.
Finned tube assembly (suitable oil cooler).	\$2.00.
Chrome wheel trims (set).	\$3.00.
Water pump.	\$1.50.
PA PB rear shock absorber support brackets.	\$1.00.
Set of heavy cylinder liners.	\$5.00.
Buick clutch plate (new).	\$10.00.
Rear spring arms (lowered for improved appearance).	\$2.50.
Javelin jack.	\$2.00.
Locking door handle.	\$2.50.
Windscreen wiper motor (make an electric fan).	\$1.50.
Distributor DKY H4A (early type).	\$0.50.
Front wheel bearing, inner – PC, PD, PE, new.	\$1.75.
Front wheel bearing, outer – PC, PD, PE, new.	\$1.00.
Wheel caps.	\$0.50.
Cylinder heads.	\$2.00.
Front spring arm and torsion bar, PA-PD.	\$1.50.
Gear change assembly complete.	\$2.00.
Micrometer, 2-ins. to 3-ins. (New)	\$9.00.
Heater complete with demister.	\$11.00.

This list covers most of the parts that I have for sale. Any person interested in the purchase of parts can call at my home, 1 Cornish Road, EAST BURWOOD. Phone No. 232 3924.

Do you know that the introduction of the 'PC' Model Javelin was a big step forward. The brakes were made ¼-in. wider front and ½-in. wider back. Front brakes are the 'two leading shoe type, a larger diff was fitted, the track was widened 1-in. front and back, solid tappets replaced the troublesome hydraulic type. Serrated conrods were fitted.

If you drive a PA or PB Model and wish to change it to a P.C., Mr. Keith Marion of 65 Ella Drove, Chelsea has the car for you, a delux model fitted with LAYSTALL oval web shaft. This car is in quite fair order. Just give him a ring. Phone No. 772 4564.

Note: This page was upside down!

NEWS FROM THE SECRETARY

Following the recent articles by Bruce Polain in 'Wheels' and the resultant letters to the editor of that august magazine, many letters of enquiry have been received from non-members requesting spare parts and technical information. Thus the contention of committee members that there are many Jowett owners who are not aware of the existence of the Club. Let us all therefore in 1966 make a special-EFFORT to publicise this organisation and its work; so that ALL may benefit. If you have been content to be merely a passive member in the past, then make a special endeavour to be far more active in the future . . .

More next issue.

Jim Mannix.