

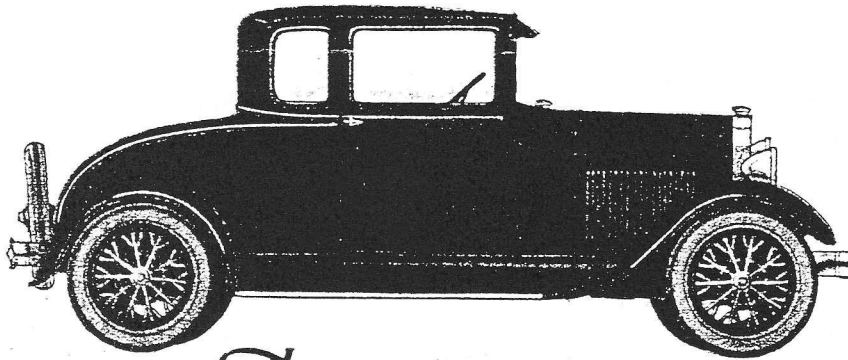


Western Model A News

Official Newsletter of the
MODEL A RESTORERS CLUB OF WESTERN AUSTRALIA, Inc

Year XXII Number XII

JULY, 2002



The NEW COUPE

For work or play, for covering a sales territory, for shopping expeditions or professional calls, the Coupe will be preferred. In the water-tight rear deck is ample room for luggage; behind the seat a commodious shelf for small parcels. The deep, roomy seat affords ample space for two, and three may be carried without hindrance to the driver. Dignified, rich in colour and fully equipped.



23 YEARS OF PUBLIC PREFERENCE

Next Run/Meeting: Sunday, 21st July, 2002 AGM & Vehicle Inspection
VCC Club Rooms, Hale Rd, Forrestfield

This Club is the WESTERN MODEL A-s Chapter of the Model A Ford Club of America, Inc.
MAFCA - 250 S. Cypress St., La Habra, California, 90631-5586. USA - Foreign Membership US\$34.00 per year

OFFICE BEARERS: *President:* PETER SARTORI [REDACTED] *Secretary/Treasurer:* TONI MAHONY [REDACTED]
Vice-President: RAY MAHONY [REDACTED] *Vehicle Examiner:* STEVE READ [REDACTED] *Editor:* LOUISE READ [REDACTED]

COPY DEADLINE: By the first day of the month to [REDACTED] Thornlie, W.A., 6108

VEWS EXPRESSED HEREIN ARE NOT NECESSARILY THOSE OF M.A.R.C. of W.A.

SUNDAY, 21ST JULY, 2002
AGM & ANNUAL VEHICLE INSPECTION

All committee positions are up for election
Inspections start at 10.00am Meeting at 2.00pm
Please bring a plate of afternoon tea to share and a mug
for your tea or coffee

21 - 27 JULY, 2002
MAFCA 2002 NATIONAL CONVENTION
Riverside, California

You still have time to go!
Contact Mickey Fruchter

Michigan Avenue, Pasadena, CA 91104



SUNDAY, 25TH AUGUST, 2002

John Moorehead & Steve Read organising

SUNDAY, 22ND SEPTEMBER, 2002

Barrie & Gwen Guest organising

27TH OCTOBER, 2002

Jack & Mavis Berkshire organising
Peter

SUNDAY, 3RD NOVEMBER, 2002

SHANNONS "BAY TO WHITEMAN" RUN 2002

NOVEMBER, 2002

~~Peter & Elaine Gilberthorpe~~ organising
RHY-TG-1

SUNDAY, 8TH DECEMBER, 2002

CHRISTMAS LUNCH

Place: Perth & Tattersalls Bowling Club, Plain St, Perth

Cost: \$25 per person Buy your own drinks

Organised by Dora Annear

16TH FEBRUARY, 2003

VINTAGE FAIR, NORTHAM

16TH MARCH, 2003

MARLOWS CLASSIC CAR SHOW

Whiteman Park

RAY ABBOTT ENGINE RECONDITIONING

** Specialising in Veteran and Vintage engines*

** Cylinder Head Service * Reboring and Sleeving * Crankshaft Grinding*
Recommended by MARC member

Established 1973

18 RIO STREET, BAYSWATER

9272 4566

34 years Experience

**MINUTES OF GENERAL MEETING
HELD ON 23 June, 2002 AT
YANCHEP LAGOON**

Meeting opened at 12.55pm.

Attendances and Apologies: as listed in Meeting Attendance Book

Welcome was made to new members, Kerry and Lyn McPharlin from Narrogin, Gayle and John Easterbrook of Bentley and visitor Leon Hood, brother in law of the Hembroughs, Mike Wringe from Kirup, Gail and Chris Alabach. Great to see some members we haven't seen for a while.

Minutes of the last meeting, moved by John Timmings, seconded Bob Newton to be accepted as read. Carried. No business arising from the minutes.

| | | |
|---------------------------------|-----------------------------|-------------------|
| <u>Financial Report:</u> | Receipts | \$72.50 |
| | Payments | \$249.45 |
| | Balances - ANZ Term Deposit | \$ 9670.39 |
| | BankWest | 2177.73 |
| | Cash Held | <u>175.00</u> |
| | | <u>\$12022.12</u> |

Renewal of the ANZ Term Deposit has arrived, it was agreed to reinvest the new balance (after interest of \$151.66 is credited) of \$9822.05 at 4.20% over seven months as offered by the bank. Moved Dora Annear, seconded Bob Hembrough that financial report be accepted. Carried.

Correspondence: In – Model A Ford Club of Queensland, June/July magazine; Marloo Theatre Newsletter June, 2002; Quambie Park Complex (Waroona Frail Aged Welfare) inviting us to visit their aged people's home on one of our rallies; Australian Business Directories requesting payment for listing on their website of \$95.00 – as far as I am aware (I checked when I got the letter) we never have had a listing with them, so, by general concensus, it will not be paid; account and receipt for the Annual Authorised Inspection Station fees of \$56.30; MAFCA Chapter registration request – again; Old Time Motor Show, Brookton mailing list update request; Viking Business Machines catalogue; Application for membership from Ron West of Mandurah.

Out – payment for AIS fees.

General Business:

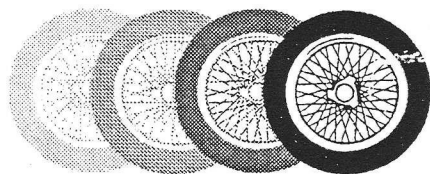
President reminded membership that all positions are vacant at the AGM and to give some thought to offering your services or nominating someone to fill these positions. As many of the committee are also involved in the 2004 Meet Committee and will be well occupied for the next couple of years, it would be a great help if others can fill the breach in the meantime.

Reminder that Concessional Registered vehicles must be examined either on 21st July at the Annual Examinations or PRIOR to that date. If you need to make another time, contact Steve Read immediately.

The September run is on the 22nd September, not 26th as listed in the Western Model A News. Dora Annear reports that the CHRISTMAS LUNCH will be held on the 8th December, 2002 at the Perth and Tattersalls Bowling Club, Plain Street, Perth. Cost will be \$25.00 per head for a smorgasbord meal. Dora will be accepting payment from the July AGM onwards for this lunch. John Laurie announced that he would be running a 4 day run in October, 2003 limited to about 20 people. See John for details.

A gentleman by the name of Rolly Richardson rang Toni asking if members could help out with a top gear for a Model A he is restoring. Please contact him on [REDACTED]. John Moorehead required a couple of 21" tyres, not necessarily in good condition. Frank Farrelly can oblige.

Meeting closed at 2.10 pm.



**COUNCIL OF
MOTORING
CLUBS** OF W.A. (INC)

CALENDAR OF EVENTS

As at June 17 2002 - **Bold letters** indicate a Council of Motoring Clubs of W.A. (Inc) event

2002

- July**
- 6-7 Festival of the Car rally (VCC/York Motor Museum/Shannons)
 - 7 **Sports Register Motorkhana - Sate Round (CMC Sports Register/MG Car Club)**
 - 10 **Council of Motoring Clubs Quiz Night - Royal Perth Yacht Club (Mercedes-Benz Car Club)**
 - 13 **CMC Sports Register Motorkhana Challenge - MC Motorsport**
 - 20-21 Full Monte Rally (Mini Car Club)
 - 28 **German Car Day - Perth to ork (Mercedes-Benz Car Club)**
- August**
- 4 **Winter Trial navigation trial (Alfa Romeo Owners Club/CMC Sports Register)**
 - 10-11 **AHMF National Meeting - Perth**
 - 19 **Council of Motoring Clubs Annual General Meeting - Jaguar Clubrooms**
- September**
- 15 Pub to Pub Sprint - York (VSCC)
 - 15 **European Car & Motor Cycle Day (Peugeot Car Club)**
 - 15 AMC Western Nationals - 100 Years of Rambler - Whiteman Park (Rambler Car Club)
 - 20-22 2002 Burswood Casino Classic Rally touring road event (AEM)
 - 29 Boyanup British Auto Classic - Boyanup
- October**
- 5 **CMC Sports Register Motorkhana Challenge - MC Motorsport**
 - 21 **Council of Motoring Clubs General Meeting - Jaguar Clubrooms**
 - 27 BMC Leyland Australia Day - Manning Reserve, Spearwood (Leyland P76 Club)
 - 31-Nov 3 Rally Australia (Eventscorp)
 - TBA **French Car Day - Guildford (ACE)**
- November**
- 3 **Shannons Bay to Whiteman Run (MMWA)**
 - 9-10 Chevrolet Odyssey (Chevrolet Club of WA)
 - 9-10 Dardanup Heritage Run (Historic Commercial Vehlub)
 - 17 Celebration of the Motorcar
 - 16-17 **Midnight to Dawn navigation trial (CMC Sports Register/Jaguar Car Club)**
 - 24 GM Owners day - Bassendean Oval (Chevrolet Car Club & WA Holden Club)

2003 Advance Notice

- February**
- 9 Classic Quarter Mile Sprints - Sandalford Caversham Estate
 - 16 Vintage Fair - Northam (Avon Valley Veteran & Vintage Vehicle Association)
- March**
- 16 **Marlows Classic Car Show - Whiteman Park**

NOTES: This page may be published in your club magazine. Details are subject to change without notice and no responsibility is accepted by the Council of Motoring Clubs of WA (Inc) or its servants for incorrect information. Updates and additional information should be directed to Paul Blank on 6389 0300 or paulb@classicrally.com.au.

Combined Car Club contacts:

Sports Register enquiries to Andrew Stevens: 9279 8005

General enquiries to Council of Motoring Clubs of W.A. (Inc) Secretary, Fred Belford on [REDACTED]

A comprehensive calendar of motoring events, frequently updated, can be found at website: www.classicrally.com.au

ABN 58352277045

Council of Motoring Clubs of W.A. (Inc)
PO Box 742, Subiaco, Western Australia, 6904

the cap jet, is the fuel that flows into the secondary well - through the compensator jet. It does not matter how high the suction is on the cap jet; the only fuel that can pass through it is the fuel metered by the compensator jet. No fuel can be sucked from the float bowl since the secondary well is open to the atmosphere and acts as a vacuum breaker. The size of the cap jet is of little importance - as long as it is larger than the compensator jet. When suction is low (at low engine speeds) fuel flows easily through the cap jet. When suction is high, the cap jet provides little fuel. This is opposite of what happens in the main jet at the same time and is what Mr. Baverey wanted.

By combining the simple carburetor and his compensator circuit, Mr. Baverey was able to get the best of both worlds. His carburetor maintains a fairly constant air/fuel ratio over most suction levels and does it with no moving parts, springs, levers or diaphragms. This means the design is very simple and reliable since there is little to wear out or go wrong. This compensator jet concept was used on Zenith carburetors as well as some Stromberg and Marvel carburetors.

The third part of the Zenith design is the idling circuit. This circuit also uses the fuel in the secondary well since when the idling circuit is operating, the cap jet does not need fuel because the throttle plate (butterfly) is closed. As the throttle plate opens, the secondary well is sucked dry and no fuel is available to the idling jet. This explains why the idling adjustment should not have any impact on engine operation after the throttle is opened. The idling jet meters fuel while the air adjusting screw controls the air and in effect, the idle air/fuel ratio. See Figure 3 below.

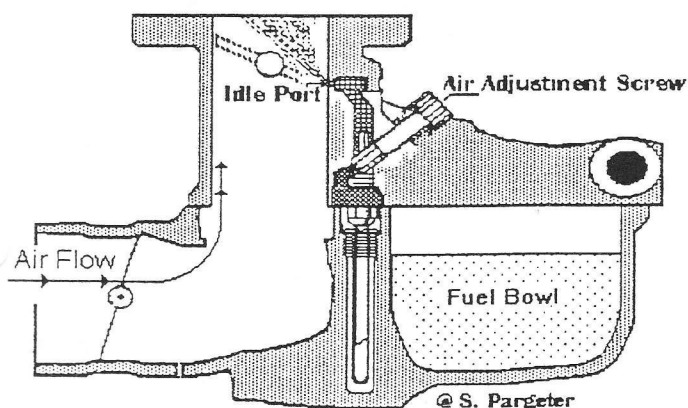


Figure 3. Idling circuit.

Gas Adjusting Valve (GAV)

A manual fuel adjustment was provided by the gas adjusting valve (GAV). The GAV provides extra fuel from the float bowl through the secondary well to the cap jet; effectively by-passing the metering of the compensator jet. This manual control allows the driver to increase the flow of gasoline - through the cap jet - into the venturi of the carburetor. The carburetor was designed to be slightly lean to allow for high altitude driving and addition of fuel as needed. The GAV provides the driver with the means of making the mixture correct under any condition. This extra fuel is normally needed when the car is cold and at low engine speeds. The GAV circuit is shown in Figure 4.

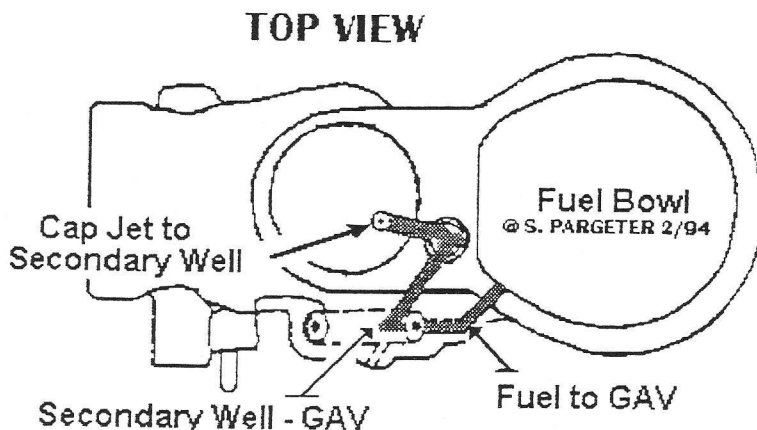


Figure 4. GAV passages.

How Can This Information Help?

There are three separate functions performed by these parts and when you see how each part works, it should be much easier to determine which part is contributing to a carburetor-related problem. Let's start by looking at the normal problems associated with each part.

Simple Carburetor Part (most effective at *high* speeds). Common problems associated with this part are: if the main jet is too large, it will make the mixture rich, give low mileage, sooty plugs, smell of gas, and irregular running. If the main jet is too small, it will make the mixture lean, the car won't go very fast, and might even back-fire at high speed.

Compensator Jet Circuit (most effective at *low* speeds). Common problems associated with these parts are: compensator jet/cap jet too large, gives low mileage, sooty plugs, smell of gas, and irregular running only at *low* speeds. If the compensator jet/cap jet is too small, it will produce a lean mixture and miss/jerk on hard pulls (at low speeds). A hard slow pull uses the compensator jet circuit the most and is its best test.

Idling Jet Circuit (effective *only* at low speeds). Common problems associated with this part are: idling jet too small - it will be impossible to obtain a satisfactory mixture except by turning idling adjustment screw in all the way. This can indicate a larger idling jet is needed. If the idling jet is too large, the adjustment screw will be turned out very far. If the adjustment screw is more than 4 or 5 turns, that can indicate the idling jet should be smaller. Before adjusting the air screw, make sure the idle speed is slow enough to make the idle circuit be in effect.

Final Thoughts

Most of the information in this article was culled from 1930s vintage engineering books on automobiles and gasoline engines. These books are a treasure chest of information and explain many of the concepts used on the Model A such as the Zenith carburetor design. I especially liked the Carburetor Supplement to Dyke's Automobile and Gasoline Engine Encyclopedia. I found a copy of this book through my local public library who located it at a local college. I hope this information makes the Zenith carburetor easy to understand and troubleshoot as well as providing some background on its French inventor. Drop me a line or E-Mail if you have comments or corrections. Remember what Henry Ford always said, "Don't tinker, keep it clean." Cheers!

The Model A Zenith Carburetor Explained (One More Attempt)

by Steve Pargeter, Nashua, New Hampshire
pargeter@ix.netcom.com

Introduction

WHY SHOULD YOU read yet another article on the Zenith carburetor? After all, this is a simple carburetor - only a couple of jets; what could go wrong? My attempt in this article is to explain the basic design of the Model A carburetor and how this information can provide help solving problems you might be having with your Model A.

Background

The Zenith carburetor was invented by Mr. Francois Baverey of Oullins, France in 1905. His carburetors were widely sold in Europe and he obtained U.S. patent 907,953 December 29, 1908 for its unique design. In 1909 the French company Carburateurs Zenith was formed as a subsidiary of the Rochet-Schneider Company which made cars and other equipment. This company eventually became the Zenith Carburetor Company. Mr. Baverey was general manager of Rochet-Schneider and was trying to build a carburetor that would provide a constant fuel-to-air mixture, regardless of engine speed.

Obtaining a constant mixture was a significant design problem. In a simple carburetor, the flow of gasoline from the main jet increases under suction faster than the flow of air. This is due to inertia, friction, and the viscosity of the gasoline flowing through the small bore tubes or openings. A simple jet carburetor cannot maintain the needed air/fuel ratio under varying suction levels and become too *rich* at high suction levels. If the carburetor is adjusted to make it work well at high speeds, it will be too lean at low speeds.

Mr. Baverey developed a carburetor (the Zenith) able to maintain constant air/fuel ratios over all suction levels and do it consistently and cheaply. While several other designs have also accomplished this same objective, the Model A used the Zenith carburetor and this article explains Mr. Baverey's solution. The article also tells what you can do with knowledge of the design.

Description

The design of the Model A Zenith carburetor has been called several different names to include: compound nozzle, compensating jet, or constant flow carburetor, but they all mean the same. To understand the design of the carburetor you need to separate its functions into the basic parts and then combine them into the final design. The first part is the **Simple Carburetor** portion of the Zenith that is basically a main jet and gasoline. This simple design results in an air/fuel mixture that becomes richer with increases in engine speed. This means you cannot expect uniform results across all engine speeds. Figure 1 shows the simple carburetor portion of the Zenith.

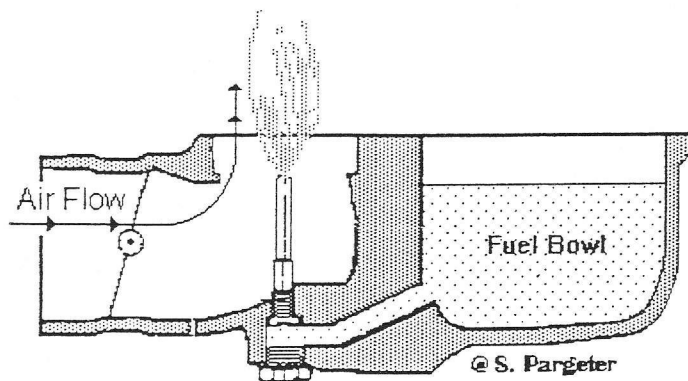


Figure 1. Main jet of Zenith (simple carburetor).

The second part of the Zenith is the unique part. This combination of parts *reduces* the amount of gasoline provided to the engine as the suction (speed) increases, which is **opposite** of the main jet. The parts that accomplish this function are at the heart of Mr. Baverey's design. The parts are (1) cap jet, (2) secondary well, and (3) compensator jet. To understand how they work, you need to understand the secondary well is vented to the atmosphere. This design stops engine suction from pulling gasoline from the fuel bowl since there is an opening to the atmosphere.

These parts work by filling the secondary well with gasoline from the float bowl *through* the compensator jet when the engine is turned off or operating at very slow speeds. The secondary well fills with gasoline and when the engine speed increases, *all* the fuel in the secondary well is sucked into the carburetor throat *through* the cap jet. The inflow of fuel at low speeds stops an otherwise lean mixture that would occur just off idle. See Figure 2 below.

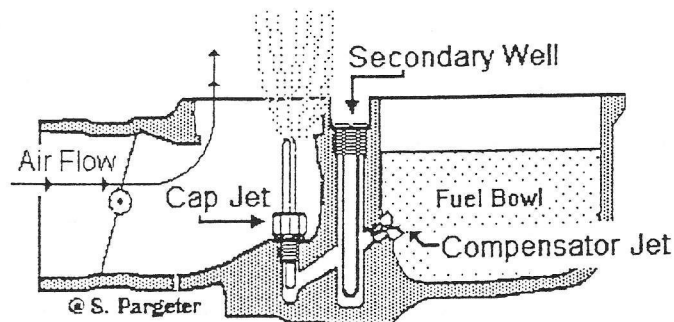
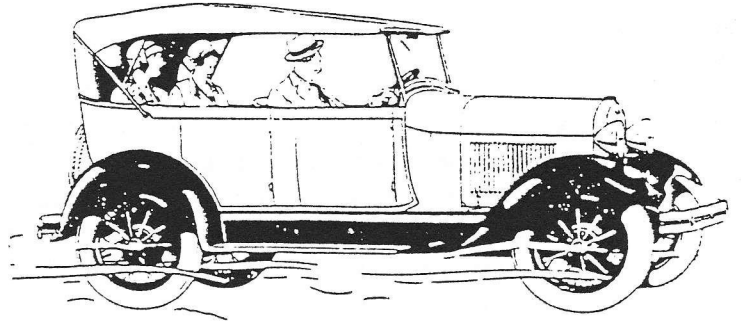


Figure 2. Zenith compensator circuit.

After the engine uses up the fuel stored in the secondary well, the only fuel that can be drawn into the engine, through



PERTH to

TOOWOOMBA

to PERTH

Ray & Toni Mahony's adventure

Part 4

Saturday, 30th March. In the morning we went for an organised drive around town and visited an aircraft museum, which had an excellent collection of mainly war planes, but also others including some novelties. In the afternoon we took part in some car games on the show ground oval. Great fun. Darren won second (or was it first) place and WA came second in the state's prize. Not bad considering we only had three participants in two cars. (Reg and Coral used my car).

The night meal was excellent, followed by a demonstration of rock and roll. Dancing and prize presentations made. Not surprisingly we got the prize for the longest distance driven. Darren got the youngest male driver prize. Reg and Coral got the "Hard Luck" prize.

Sunday, 31st March. The mandatory run started at 8.00am and went to the Toowoomba Pioneer Village. The village had the usual collection of early life including machinery, much of which was unrestored and in good working order. The day concluded with a grand parade of early farm machinery, cars and tractors. On the way to the village some members including ourselves, called into a cuckoo clock shop and saw some of the most magnificent, interesting and unusual clocks possible. We then detoured to the local market for a sticky-beak and a few minor purchases. I picked up a Model A head stud/spark plug spanner.

The night activity was the presentation dinner followed by dancing, except not many felt like dancing. After dinner each club president thanked the Queensland Club for their hospitality and I gave a short presentation and invited everyone to our National in 2004.

Monday, 1st April. All gathered at the show grounds for a farewell breakfast. Some then caught a bus to Brisbane, while others left for home. We returned to the caravan park, washed clothes and the car and generally prepared for departure on Tuesday. In the evening we went to Lone Star for dinner.

(Four day in and around Toowoomba 142 miles)

Tuesday, Wednesday and Thursday, 2nd to 4th April. Steve had to be dropped off at the Sunray Motel by 8.00am so he could drive to Melbourne. I acted as taxi driver while Toni generally got ready to leave for Brisbane. We got away by 10.30 heading very carefully down the mountain. Purchased fuel on the way at 76.9 c/litre.

We spent three nights in Brisbane visiting long time friends and some of Toni's rellies. On Wednesday night while giving our friend a lift home we started to run out of lights and power. We were 25km from our caravan park the lights were going off and on and the engine was missing. As things seemed to work ok at high revs I stopped and adjusted the charge rate up so it could supply sufficient power for lights and ignition at reasonably low revs.

On Thursday morning I checked the battery, it seemed ok until I turned on the lights; it took about one minute for the voltage to drop to 7.5 volts. Diagnosis – battery kaput. We bought a new battery and fuel at 80.7 c/litre. Our caravan Park in Brisbane cost \$46 per night.

(168 miles)

Friday, 5th April. We left Brisbane at 8.30am on a bright sunny day heading down the Princess Hwy. It was a great run, getting along at a steady 45mph, but pretty busy. At one stage I thought I was in a star wars “dog-fight” with cars and trucks wizzing by at great speed. By the time we reached Coolangatta it started to rain. By the time we got to Byron Bay it was bucketing down. I had turned the tail lights on for additional safety but as I approached the car from behind I found I had been travelling without tail lights on the trailer. I also determined the stop lights were not working. Nothing to do but fix the lights in the rain.

While fixing the lights we were told that the whole coast had been rained out, so we decided to leave the coast and head over the mountains to Tenterfield. This drive can only be described as a nightmare. While getting fuel (85.9 c/litre) some “twit” asked if we were touring or just showing off. I ignored him, and let Toni scowl and give an appropriate response.

The road was rough, winding, very hilly and the traffic included many trucks that sat right up your – bumper. We had considerable trouble getting up some of the hills; barely getting along at 5km/hr in first gear. The engine did not want to run, it coughed, spluttered to the extent that I thought we would not make it. In desperation I pulled the choke out about three quarters and the power picked up. Most people would say fuel problems, but quite often an engine with a weak spark will run much better on a rich mixture, so I stopped about 40km out of Tenterfield to check the distributor. When I lifted the cap I saw brass filings so that was enough reason to replace the distributor.

While changing the distributor a man turned back to see the car, introducing himself as Ian, owner of the Royal Hotel/Motel in Tenterfield. He offered to come back or send someone back to get us if we could not get going, all we had to do was ring the number on his card. We got going successfully and pulled up just into Tenterfield to consider our next move when a young lady came up and asked if I was Ray. She was Julia, Ian's daughter. She said Ian had told her we were coming through and to watch out for us. We didn't realise we had stopped outside the Royal Hotel/Motel. As a room was only \$50 including breakfast so we stayed the night. By dinner time, Ian had located an old time mechanic who could help us if needed, he showed genuine interest and concern for our welfare.

(245 miles)

and the journey continues.....

Notebook

BIRTHDAYS for JULY: Birthstone: Ruby; Flower: Larkspur

The following people share their birthday month with Henry Ford -
Reg Blewett, Chris Butler, Ian Cocks, Pauline Edwards, Glenda Hurij, Hans
Hurij, Bob Newton, Kelvin Pepper, Lorraine Sartori & Ron West

NEW MEMBERS:

Welcome to new member Ron West [REDACTED] Mandurah 6210
Ph: [REDACTED] Ron has a 1928 Phaeton under restoration.

CHANGE OF ADDRESS:

Tom Eastough, [REDACTED] Bindoon 6502
Please alter your membership directory.

AGM:

Please ensure you present your vehicle for it's annual inspection or provide paper -
work to prove you have had it inspected elsewhere at an approved site.

DON'T FORGET all committee positions will be vacant, please consider volunteering
for one of them and be involved with the running of your club.

NAME BADGES:

Would all new members (or any others who have lost theirs) who wish to have name
badges please give your names to Dora or Louise at the AGM as we need a reasonable
number to be produced to be cost effective for all.

Also club t-shirts, lapel badges, cloth patches and car badges will be for sale at the
AGM, or can be posted to your address. *Louise*

BEST WISHES AND HAPPY TRAVELLING

to David & Pat Bussard as they head off to the US for a Model A Convention.
I'm sure they will share all of their experiences with us on their return.

CHRISTMAS LUNCH

Although we are only half way through the year, it will be here soon enough.
Dora has once again organised the venue and as you will see in the Calendar a
price has been set. Anyone who likes to plan early and get their money into Dora
can do so at any of the meetings.

HERE ARE A FEW LITTLE GEMS reported in the Massachusetts Bar Association

Lawyers Journal of questions asked by attorneys and answers by witnesses-

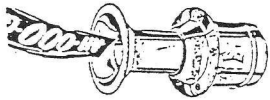
Q: "Doctor, how many autopsies have you performed on dead people?"

A: "All my autopsies are performed on dead people."

Q: "You were not shot in the fracas?"

A: "No, I was shot midway between the fracas and the navel."

Q: "Were you alone or by yourself?"



If undelivered, please return to:
Thornlie [redacted]
Western Australia, 6108

SARTORI Peter & Lorraine
[redacted]
MURDOCH WA 6150



**WESTERN
MODEL A NEWS**

WINTER RUN Sunday 23rd June, 2002

A beautiful sunny day for the June run, with fifteen Model A-s and five moderns.

Welcome to new members Lyn & Kerry McPharlin and Gayle & John Easterbrook in their Coupe on their first run with the Club.

The meeting place was Neil Hawkins Park, Joondalup which is a very nice park now and much improved since the club was there last.

After morning tea and quite a long chat, we moved off at one minute intervals thanks to Max our marshal. Sorry I ran out of direction sheets.

The south of the river members had quite a long drive just getting to the meeting place so we didn't go far north. Yanchep Lagoon was our destination where we had a nice place on lawn for our lunch and meeting.

Good to see Jeannette & Bob Hembrough bring Jeannette's brother Leon. Hope he enjoyed the run and scenery.

June & Alan Smith

Reasons Not To Exercise

It is well documented that for every minute that you exercise, you add one minute to your life. This enables you at 85 years old to spend an additional 5 months in a nursing home at \$5000 per month

My grandmother started walking five miles a day when she was 60. Now she's 97 years old and we don't know where the hell she is!

Thanks to Colin Strahan for this enlightenment

