

# Western Model A News

The Official Newsletter of THE MODEL A RESTORERS' CLUB (WESTERN AUSTRALIA BRANCH) INC.

Year XI Number YI

JANUARY, 1991

records

amended.

would seem to be

around 6 more cars

not listed so now

we actually have a

total of around 107

cars and nearly

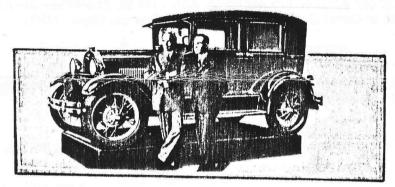
half of them are 'on

the road'. Changes

already: please add

There

Welcome to the first year of a new decade. You will see from the Calendar in this issue that you can plan a lot of Model A activities over the next few years. The ultimate event of the decade being, of course, the 12th National Meet in Perth.



Henry and Edsel Ford and the Model A at Ford Industrial Exposition, New York City, January, 1928

### SIXTY-THREE YEARS LATER

Accommodation will be reserved at Noalimba Centre to gain practical experience for the National Meet in April, 1992. The organising committee plan to stay from dinner Saturday night until lunch on Sunday, with some activity on Saturday night and a 'run' on the Sunday. ALL members are most welcome to stay at the Centre (in fact, the more the better) and we need to know numbers very soon to confirm the booking. Please telephone Bevan or Helen on 339 4082 if you can join in and have a fun weekend while helping the 1992 National Meet Committee. Prices and details will follow as soon as we know the information.

The 1991 Register of members and vehicles has been compiled, printed and produced. Unfortunately, it can only include information supplied so there could be errors - please advise if your entry is not correct so the Club

EAKS LAIEK ANDREW
AINSWORTH, Box
1232, Esperance, 6450 - '29 Truck and include
ALEX KIRKWOOD's name.

Membership of your Club has grown over the past few years, as follows:

Year	Members	Cars
1988	52	78
1989	48	73
1990	55	85
1991	75	102

If you know of any other Model A owners or enthusiasts who do not belong to the Club, please ask them to join us, or advise the Secretary of their name, address and details.

Do you notice that, once again, we have been able to attract new advertisers? PLEASE support all our advertisers and tell them where you saw their name. Any suggestions for others would be most welcome...

Sunday, January 21 - PICNIC IN THE PARK
Manners Hill Park corner of Keane & Lilla Streets, Peppermint Grove at 10.30am. BYO lunch.

OFFICE BEARERS : President: JOHN LUCA

Vice President: LOUISE READ

Secretary-Treasurer: HELEN SHARP

Editor: BEVAN SHARP

COPY DEADLINE: by the 7th. of each month to :

Palmyra, W.A., 6157

VIEWS EXPRESSED ARE NOT NECESSARILY THOSE OF M.A.R.C. ( W.A.) INC.

SUNDAY, JANUARY 20, 1991

Picnic in the Park at Manners Hill Park, corner Keane and Lilla Streets, Peppermint Grove at 10.30am. BYO picnic lunch.

FEBRUARY 16 and 17, 1991

Combined Car Club's Annual CLASSIC CAR SHOW at Burswood Superdome - please phone BEVAN SHARP now on your Model A can go on display for this weekend or you can be a 'helper'.

SUNDAY FEBRUARY 24, 1991 - please note change of date. Annual Breakfast Barbecue at Ley Street Park, Como at 7am

MARCH 2, 3 and 4, 1991

Traditional long-weekend at Dennis Leach's farm Boundry Road, Boyanup Camping facilities, all meals provided from tea on Saturday to breakfast on Sunday for \$30 per adult or \$15 per child. Entry fee \$5. Enquiries: John Head Entry for Coral Greenfield Entry for \$10 per 18/12/191.

SUNDAY, MARCH 17, 1991

Combined Torana Club 's Custom Car and Bike Show to raise funds for Malibu Special School at Rockingham City Soccer Club. Club entries are \$5 and private entries are \$8 for a vehicle and two persons. 40 trophies.

MARCH 23 & 24, 1991

TRACMACH - Wyalkatchem Tractor and Machinery Fair -

MARCH 29, 30, 31 and APRIL 1, 1991
Easter at Leeman organised by the JEFFREE family. Full details later.

SUNDAY, MAY 5, 1991 - 10th Anniversary Run Re-creation of the same very first outing by your club in May, 1981.

MAY 25/26, 1991 - Stay at Noalimba to test facilities - to be confirmed.

JUNE, 1991 - 'Gunbarrell Highway' Adventure Looking for some excitement in your life? Phone ALAN SMITH on

FEBRUARY 10 - 24, 1992

2nd BP Pan Pacific Rally, Palmerston North, New Zealand.
Details: Rally Director, Palmerston North, New Zealand.

APRIL 16 - 21, 1992

12th Australian National Model A Ford Meet - Perth, Western Australia.

JUNE 22 - 26, 1992

M.A.F.C.A.'s 17th National Convention, Dallas, Texas, U.S.A. 'Early Bird' Club US\$7.50 to: P.O. Box 797402, Dallas, Tx 75379-7402, USA.

MARCH 13, 1993 for 15 days

1993 Tasmanian F.I.V.A. World Rally

Limited to 400 entries manufactured prior to December 31, 1930. Entries close June 30, 1992. If you wish to have an entry form and to be kept informed, send \$5 (which will be deducted from your entry fee) to: Mr A.F. Ransley. Wynyard, Tasmania, 7325,

APRIL 9 - 12, 1993

Third New Zealand National Model A Ford Meet in Hamilton.
Details from Auckland, New Zealand.

MAY to OCTOBER, 1998

Around Australia to celebrate 70 years of Model A.
Organised by Michael Livingstone (NSW) and Neil Phillips (SA).



## Combined Car Club Association's CLASSIC CAR SHOW

'The Greatest Classic Car Show Ever Held In Australia" February 16 and 17, 1991

That modest comment above is from the C.C.C. so you will see that the organisers are really aiming very high this year.

They state that they are 'providing the public and our fellow car enthusiasts with a weekend of Classic Automotive Entertainment.' They are requesting that displays be of a higher quality than usual and that only 'display-worthy' vehicles are displayed. There will be 'substantial cash amounts' for prize-winning displays.

Your Club has booked display space, we need to have about 10 cars for display covering a variety of body styles. At present we have PHILLIP RACCUIA'S Coupe, PETER LYNCH'S Coupe, MIKE COOKE'S Tudor, STEVE READ'S Roadster, BEVAN SHARP'S Tudor, DARREN JEFFREE'S unrestored Phaeton and the Swan Brewery'S Truck with a display. PLEASE phone BEVAN SHARP now on the style of the style of the sweekend.

We also require some helpers to watch the cars and answer the usual questions. "My Dad had one exactly like that but it was a sedan, and it was purple ... and it was a Chevrolet, just like that one." Please phone Bevan if you can volunteer - we would prefer that the helpers (of both sexes) be in 1920-30's era clothing, if possible.

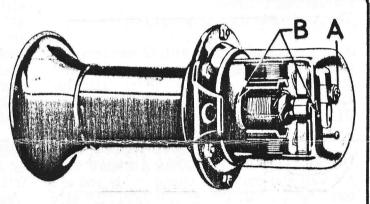
We have a form for Concours D'Elegance competition. Please advise if you wish to also enter for this section and you will receive a copy of the form and conditions. There is a fee of \$5 per car and entry forms must be received at the C.C.C. by February 10, 1991.

#### PLEASE PHONE SOON IF YOU CAN PROVIDE A CAR, OR YOURSELF.

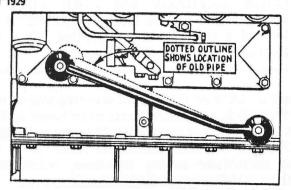
#### How's Your Horn?

Like the rest of your Model A, the horn must also be maintained for top performance.

Once a month – remove the cover over the rear of the horn and place a few drops of light oil in the groove at each end of the armature shaft (marked 'B'). To clean the commutator, set the motor in motion by pressing the horn button and hold a piece of fine sandpaper against the commutator until it is clean. Next, with a small piece of wood, clean the gaps betwen the commutator segments – never use anything metal. The armature should revolve freely when turned with the fingers. Turn adjusting screw 'A' to regulate the tone.



### OIL RETURN PIPE CHANGE



#### **NEW yersus OLD**

They tell me that as we get older,
We become more and more like a car.
And depending on how we look and perform,
People judge what vintage we are.
We chug a little bit slower
And puff a little more,
And when we recount the miles we've done
We risk being labelled a bore;
But there are one or two compensations,
It's surprising, when we put to the test,
How often the newer makes break down or rust—
The older-type models are the best.
from Victoria's 'Ford Torque' author unknown

### DECEMBER DOINGS

Actually, it nearly all happened on one weekend!

Titan Ford Display

On Saturday morning December 8, the following members assembled their Model A-s at Titan Ford for a display to promote National Meet sponsor's department and to help raise funds to send a child overseas for much-needed medical care: STEVE READ, BILL BENNIE, PHILLIP RON ANDREWS. REG RACCUIA. BLEWETT, BEVAN SHARP, MIKE COOKE, DARREN JEFFREE, PETER LYNCH and JIM WILLIAMS. Thanks guys, the General Manager of Titan Ford (Alan Gray) and Service Manager (Keith Purdie) were pleased with the display and grateful for your co-operation.

The Falcon GT Club and the British Ford Club also had some cars on display.

Club Model A Parts Swap Meet

Those with cars on display were shuttled to the Sharp domicile where they combined with several others in a mini parts swap morning (including parts donated to the Club by Queenslander Rod McMullin for the 1992 Meet).

After HELEN SHARP provided morning tea it was back to Titan Ford for a free barbecue and drinks before driving home.

Christmas Dinner That night was the Christmas Dinner.

A very successful night with 62 members and friends partaking of an extensive buffet dinner at the Freeway Hotel. Country members BARRY & SYLVIA BRISTOW-STAGG and DAVE & RUTH LUCAS from Northam were most welcome.

Unfortunately MAX & DORA ANNEAR were not well and could not attend - hope you are both fighting fit now? EDITH JEFFREE also left ALAN home on his sick bed and was 'escorted' to the dinner by John Parker (who is just about an honorary member anyway) - DARREN was keeping his eye on them! Great to also see JEANNANE RICHARDS and also MAVIS SPENCER joining in.

Many thanks to the organising committee for a very successful evening: NINA WILLIAMS, JUNE SMITH and IVY McLEAN - well done girls, want the job again next year?

Yet another Parts sale

On Sunday morning several members were again up bright and early for the trek up the hill to the RICHARDS' abode for a last chance at the Model A spare parts. However, following this last sale JEANNANE RICHARDS very kindly donated ALL the remaining parts and spares to our Club.

More Model A parts for Club Members
Consequently, JIM WILLIAMS organised a
posse of bounty hunters to ride up to
Gooseberry Hill (doesn't have quite the same
ring as 'Deadwood' or 'Tombstone' does it?) for
a 'dawn raid' to collect the parts.

JIM WILLIAMS, STEVE READ, JOHN LUCA, COLIN DAVIDSON, BEVAN & HELEN SHARP, ROSS LETCH, BILL COWLIN and MIKE COOKE met at the RICHARDS' residence at 7am on Sunday, December 16 and proceeded to load up: two trailers and two utilities full of a wide variety of Model A parts, plus a trailer and three van loads of assorted non-Model A goodies from V8 Fords to heaven knows what.

The non-Model A bits have been stored and will probably be offered at the V.C.C. Autojumble next October. The Model A parts are available NOW to all Club members - contact President JOHN LUCA if you have any queries and he will arrange for you to look over the parts which can be yours after you make an offer for any part, with funds going toward the 1992 National Meet.

MANY THANKS JEANNANE - YOUR OFFER IS MUCH APPRECIATED. Thanks to JIM WILLIAMS for his usual high standard of organisation and also to the guys who sorted, packed, carried, loaded, shifted, unloaded, unpacked and stored the pile of parts. Thanks COLIN DAVIDSON and JOHN LUCA for storage space and to RON ANDREWS for the loan of a trailer which travelled 170km that morning behind the SHARP wagon.



DID YOU KNOW THAT...

 When the Model T was introduced on October 1, 1908, the steering was on the left and that within a few years every U.S. auto manufacturer followed suit?

The first Club formed of owners of one make of car was in St Louis in 1908 by a group of 300 Ford owners? The 'Ford Times' found the idea: "to be an excellent one for it promotes sociability among members, boosts the automobile generally, and assists in FORD sales in particular."

### THE TEN COMMANDMENTS FOR 'CLASSIC' CARS

- Thou, nor thy children, nor thy children's children, shalt touch the chromework, nor the paintwork nor the glass thereof with thy sweaty hands.
- 2. Thou shalt not ask if the car runneth, nor the value thereof, nor if the owner can still procureth tyres.
- 3. Thou shall not remark that the car must have been well cared for to be so well preserved.
- 4. Thou shalt not permit thy children, nor thy children's children, nor thy neighbours' children to climbeth upon any part of the motor car.
- 5. Thou shalt not kick the wheels, nor the tyres thereof, nor even yet open and close the doors.
- Thou shalt not refer to the machine as a 'jalopy', nor as a 'clunker' nor any other similar unseemly or derogatory names.
- 7. Thou shalt not lift the bonnet of the car, nor prod the upholstery, nor finger any switches or controls.
- 8. Thou shalt never distort the truth, regardless of the remote possibility, and say: "My father/uncle/grandfather/wife's cousins next door neighbour had one of these".
- 9. Thou shalt not blow thy horn when passing in thy modern car unless the need shall arise.
- 10. Thou shalt not drive alongside to gawketh, endangering thy own life, blocking traffic lanes and preventing the 'old car' from negotiating the traffic.

AMEN



### MODEL "A" GENERATOR REBUILDING HINTS

By Steve Pargeter, Nashua, New Hampshire

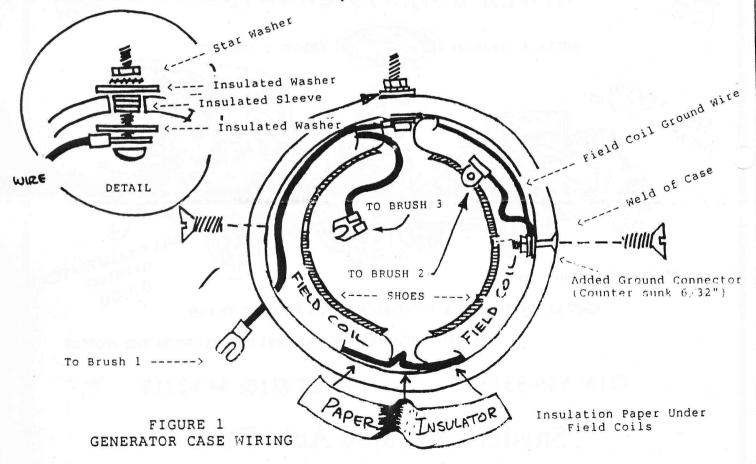
From: M.A.R.C.'s 'Model A News' July/August, 1990

The restoration of a Model "A" consists of rebuilding and restoring many items which employ technology no longer used. The Model "A" generator is a classic example of the use of truly old technology. The generator runs at 1½ times engine speed and has a maximum charge rate of 18-22 amperes at 6 volts direct current (VDC). The maximum output is normally reached when the car is traveling about 25 MPH.

I recently acquired a 1930 Tudor and began a frame-up restoration. My particular Model "A" came with a non-Ford generator so I went to the swap meets and finally found a correct unit for \$5. Pleased with my find I went home and began to take the unit apart, including removal of the field coils and shoes. When I started rebuilding the generator I read all the articles I could find to understand how the generator worked and what I should watch for as I went through it.

Most of the articles I found told you to build a holding fixture out of wood and use a screwdriver bit in a drill press to remove the field coil screws. I tried that approach only to discover the screwdriver bits were expensive, hard to find, and the first couple I tried sheared off in the field coil screws. I decided to try a different approach and simply drilled a pilot hole in the center of each of the field screws and then used a large bit to drill the heads off the screws. The field coils fell out and I easily removed the remaining screw parts from the field coil shoes. It seems once the tension was released, the screw pieces came right out.

Once I had taken the generator apart, sandblasted and painted the parts, the fun began. One article I read told me to drill a new ground connection "somewhere" but the pictures were too fuzzy to help me understand where. I determined a good place to drill the extra ground screw is on the generator case weld, under the band that covers the brushes. I drilled a %2" hole and countersunk it then connected the ground lead from brush number 2 and the field coil ground. Figure 1 shows a drawing of the field coils and where each of the wires are connected.



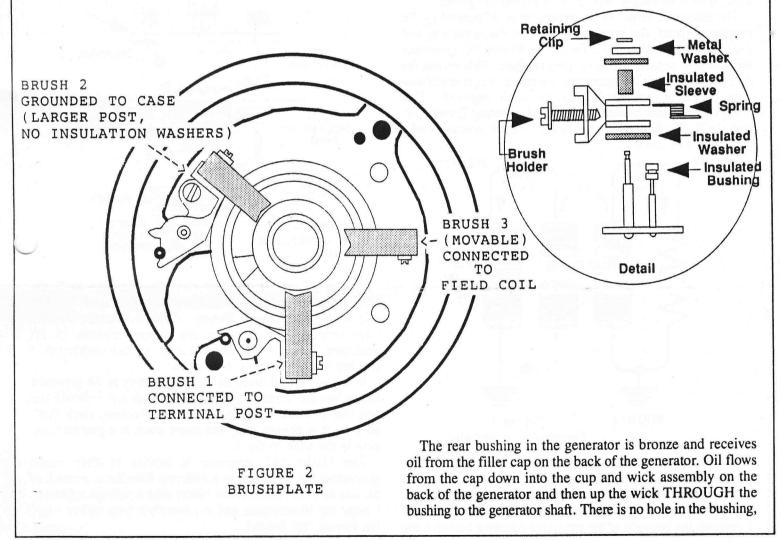
Putting the field shoe screws back in was not as easy as getting them out. I tried several ways to get them back in and finally bought a Proto Challenger socket, P/N 1645 which is a flat blade on a ½" socket. I had to carefully grind down its width and length to fit my field coil screws and then with the wooden holding fixture and my modified socket, I was able to tighten the screws enough. You will know when the screws are tight enough when the armature fits easily between the field coil shoes.

I had read that I should "polarize" the generator but they didn't explain how or why. I did some research and learned the purpose of polarizing is to set up the magnetic moments in the field shoes (the metal parts that hold the field coils). This is needed to have all the electrons facing in the correct direction. This is needed since you may have to reinstall the shoes in a different orientation or dropped them, both of which alter the magnetic moments. You are really just making small permanent magnets out of the shoes by running a current through the field coils. The *shoes* are magnetized, not the coils.

The way you "polarize" the shoe assemblies is to complete the assembly of the generator and then ground it normally (i.e., positive ground) to the car or the battery. Take the opposite battery cable (i.e., negative) and momentarily touch it to the output terminal of the generator (the terminal where you normally connect the cutout). This momentary connec-

tion serves to align the electrons in the field coil shoes and makes the shoes permanent magnets. Sounds worse than it is. If you don't polarize the generator, you will probably reduce the efficiency of the unit so go ahead and do it.

I found the most time consuming process was reassembling the brush plate assembly. This was a problem for me because I had never done it before and there were specific pieces that only went in one place. In order to help others, I prepared a drawing which shows where the major pieces go, see figure 2. I purchased a "Complete Generator Rebuild" kit from one of the reputable Model "A" suppliers. While the kit was generally complete, it did have several problems. For one thing it did not contain the field coil screws I needed and had three identical brush tension springs. I spent over an hour trying to determine how one of the springs went in, only to realize the kit was wrong, that particular spring would never go in. The Model "A" generator has two springs that are the same and one that is wound in a reverse manner. The reverse wound spring (part number B-10068) goes on brush 1 while the other two springs (part number B-10057) go on brushes 2 and 3. I was able to use the brush spring out of the old generator so I didn't have a crisis, other than the wasted time and the frustration. The sparse instructions that came with the generator kit were also so small I had trouble reading them and, of course, there were no pictures or illustrations to help.

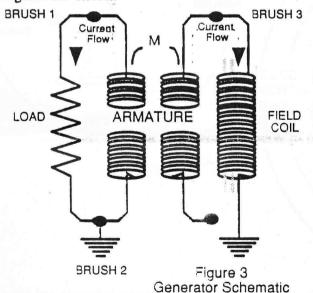


since the oushing is made of a porous material. I initially planned to drill a hole in the bushing until I read the article on page 447 of the *Ford Service Bulletins* that warns you not to drill such a hole. Apparently if you drill a hole, the rear shaft gets over oiled and gets on the armature segments. Bad news for sure!

The generator rebuild kit also contained a small rectangular piece of insulating paper about  $1\frac{1}{2}$ " x 5" but there was no mention of where it goes or why. This insulator fits beneath the field coils and the case, directly under the wire that connects the two field coils. This insulator is placed here to provide an additional barrier in the event the wire cracks. This area will also become filled with the carbon dust from the brushes as they wear. Without an insulator, the carbon dust could provide a short to the ground. It should be bent up in the center to provide room for the long bolt that holds the end plates to the case. The paper also provides insulation between this bolt and the field coil connecting wire (see figure 1).

Now, a bit of the obsolete technology used in the generator. I read to adjust the output of the generator move the third brush (normally with an insulated tool such as a wooden stick). To increase the output, move the third brush in the direction of rotation; to decrease the output move it counter to rotation. I was curious why moving the position of a brush would change the output of the generator so I discussed this topic with a colleague who is an electrical engineer.

The electrical output of the generator is influenced by the rotational speed, the number of coils on the armature, and the strength of the magnetic field. The Model "A" generator has fourteen separate coils on the armature. This means for every revolution of the generator, there are twenty-eight outputs or peaks produced, two for each segment. This unregulated output is sometimes called pulsating Direct Current (DC). See figure 3 for a schematic of the internal Model "A" generator circuit.

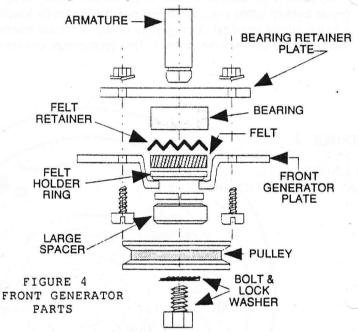


The generator takes the output from the circuit formed by two brushes (brush 1 and 2) connected to the load or output. The third brush connects the generator output to the field coils. Moving the third brush either closer or further from brush 1 controls the strength of the inductive coupling between the

armature coils. The further brush 3 is moved from brush 1, the lower is the inductive coupling and the lower the current through the field coils. The closer brush 3 is moved towards brush 1, the higher is the inductive coupling and the higher is the field coil current.

The induced current flows, via brush 3, through the generator field coils to ground. The larger the current, the stronger the magnetic field produced and the higher the output of the circuit through brushes 1 and 2. The physical movement of brush 3 controls the strength of the magnetic field (field coil and shoes) and consequently the output of the generator. There is no voltage regulation used on the Model "A," probably because of the slow speed of the engine. The battery takes the pulsating DC directly from the generator and acts as a filter of the output. The BOTTOM LINE is that by moving the third brush, you can control the strength of the magnetic field surrounding the armature and thereby control the output of the generator.

I also found assembly of the front plate confusing and since you don't even know if the generator you disassembled was correct, I felt it valuable to show where the parts go on the front bearing assembly. The details are shown in figure 4.



I found the electrical circuit, described on page 16, figure 18A, in the Polyprint publication titled Ford Model 'A' Car and Model 'AA' Truck: Engine - Chassis Manual, to be the most helpful since it shows the internal circuits of the generator. I have not included a copy in this update but if you are interested, give it a review.

When you are all done, connect the battery to the generator just as you did when you polarized the unit and it should run just like an electric motor, clockwise direction, since that's all it is. If it doesn't run, you know there is a problem and now is the time to fix it.

The Model "A" generator is similar to later model generators but functions in a different manner as a result of the use of a moveable brush rather than a voltage regulator. I hope my illustrations and explanations help others enjoy the Model "A" hobby!

### ... Notebook ...

Welcome to New Members: DAVID & BARBARA BLEWETT.

'31 5-window coupe - and - HENRY STRIK, Bassendean.

'Uted-Tudor'. Henry is seeking: front bumper, horn, handbrake parts, front windscreen and glass, R.H. Tudor window, '29 wheels and running boards - can any one help?

Congratulations to AMANDA LETCH on her recent marriage to Darren Joiner. Also to JOE WOJDYLO on his marrage to Elizabeth.

**Get Well**. Been a few on the sick list last month: KATH PEPPER took a 'nose dive' off a ladder and badly damaged her wrist - KELVIN was not there so he couldn't have pushed her, must have been by remote control? MAX & DORA ANNEAR and ALAN JEFFREE missed the Christmas Dinner through illness. Hope you are all fit and well and looking forward to 1991!

#### Wanted

1. '29 right-hand front guard by GEOFF PRINGLE -

King pins and shackles, etc by JOHN LAURIE Single plate clutch, ring gear and engine pulley for a '29 Model A by Andy Sharp,
 Busselton, 6280. Home: Work

4. Does anyone know the whereabouts of a cast iron brake drum from the Spencer auction? It was in a red primer and evidently sold separately. Please advise JOHN LUCA on

National Meet. Forgot a name last month among the mentions of members putting items together for the 1992 National Meet - LAUREL COOKE is compiling special Rally Bags for the children. Sorry, Elsie. If you have any ideas please phone LAUREL on Recipes. If you have not done so, please forward those recipes requested previously to LAUREL COOKE, Kingsley, 6026 - today would be ideal!

Custom's Duty. Further to the article last issue - A country member says that parcels of auto parts from overseas consigned to an address in the country often avoid custom's duty completely. We don't have any proof of this anomoly, is it just too hard to collect the duty....? For general information, my sister attempted to collect her future daughter-in-law's bridal dress sent from America for the wedding in Perth and was told she would have to pay \$800 duty.

**Tight Spigot Bearings?** Did you note the mention of using heavy grease and a length of dowel in the December issue to remove tight bearings? STEVE READ has suggested use of plasticine instead of grease to achieve the same result.

OOPS. We are advised that the rebuilt ball joint offer from NSW only applies to modern cars.

Parts From America - VERY IMPORTANT. When ordering ANY parts from Snyders Antique Auto Parts at ANY time by phone, fax or post, PLEASE mention 'Department WA' or that you are a member of the Model A Restorers Club in Western Australia and saw their advert, in your monthly Newsletter. This is their only check that the advert is working and Snyders could become a regular advertiser if they can see direct results in the form of orders.

Fascinating Videos. Do you want to view the VHS video tape of the recent Queensland National Model A Meet? Contact Secretary HELEN for a free viewing in the privacy of your own home. Also available is the promotional tape for the 12th National Meet to be held in Perth, also available from HELEN.

Available now. From the Secretary. Cloth Badges (\$5) for caps, jackets, tee-shirts, etc. Metal Lapel Badges (\$5). Metal Car Badges (\$15). Superior INOX and BATROLYTE at special prices.

Concessional Licence. The C.C.C. report that there are currently 1,100 concessionally licenced vehicles in W.A. and request that they all obey the rules.

DID WE ALL ACTUALLY WIN ONE? The C.C.C. also report that Minister Ros Kelly has DENIED that the Government considered hitting old car owners with higher petrol and registration bills as compensation for damaging carbon monoxide gases emitted by their vehicles. Do you believe that? I believe in Father Christmas, but as a confirmed sceptic.....



If undelivered, please return to:

Palmyra,
Western Australia, 6157

Mrs M. Spencer 22 Hovea Crescent BUSSELTON 6280



Western Model A News



Looking for an engine reconditioner with Model A experience who is recommended by Club members?

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6/146 Balcatta Road, Balcatta, 6021

\* CRANKSHAFT GRINDING \* CONROD RE-SIZING

\* Cylinder Head Specialists \* Alloy/Cast Iron Welding \* Engine Reconditioning \* Free Pick Up and Delivery

Telephone Ray on 345 2525

#### MODEL A FORD PARTS NUMBERING SYSTEM

Model A parts are numbered in groups.

Passenger car numbers have the prefix 'A', truck parts are 'AA'. Where a part is used in both cars and trucks it carries the prefix 'A'.

and trucks it carries the prefix A.				
Group	Numbers			
Wheel	A-1000 to A-1999			
Brake	A-2000 to A-2999			
Front Axle/Steering Gear	A-3000 to A-3999			
Rear Axle	A-4000 to A-4999			
Frame	A-5000 to A-5999			
Engine	A-6000 to A-6999			
Transmission and Clutch	A-7000 to A-7999			
Cooling System	A-8000 to A-8999			
Fuel System	A-9000 to A-9999			
Electrical Equipment	A-10000 to A-15999			
Fenders, etc	A-16000 to A-16999			
Speedo, Wipers, Bumpers, etc	A-17000 to A-19999			

BRAKE PEDAL ANTI-RATTLER
Also returns pedal so brake light turns off.
Unauthorised accessory by Champion
Anti-Rattler Co of St Louis, MI sold for \$3.00
per dozen. YOU CAN MAKE ONE!

