

November 1991

# *The* **HUMBERETTE**



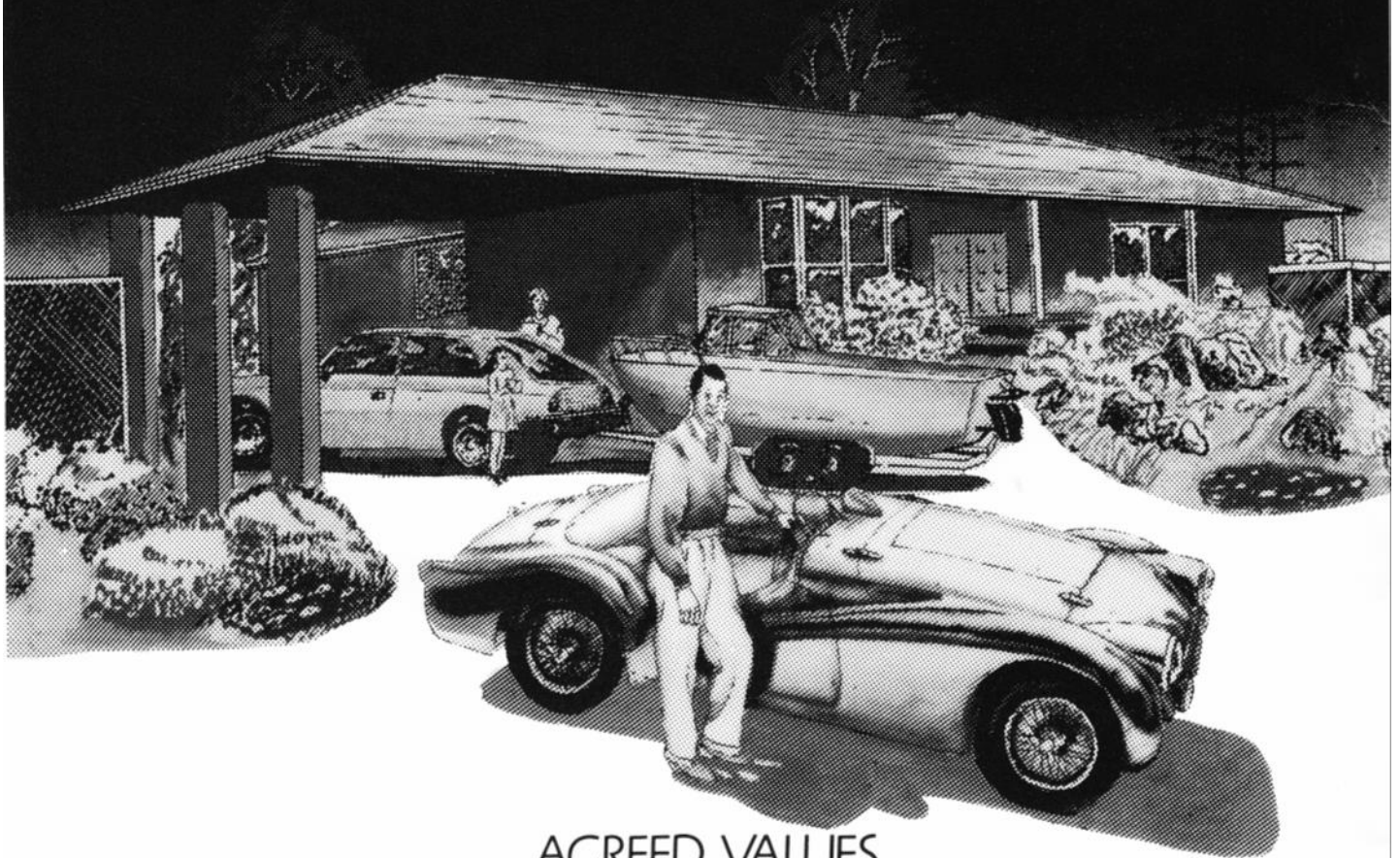
By Appointment to  
The Royal Family

Official Newsletter of the  
Humber Car Club of  
Victoria Inc.

Affiliated with the  
Association of Motoring Clubs



# Feeling Secure About Your Investment?



AGREED VALUES  
RETENTION OF WRECK  
AUSTRALIA WIDE SETTLEMENT  
FREE WINDSCREEN COVER

ON YOUR  
CLASSIC, VETERAN OR VINTAGE CAR

**HOME • CONTENTS • BUSINESS • COMMERCIAL • SUPERANNUATION  
PRESTIGE CARS**

V.G.L. INSURANCE BROKERS OFFER A COMPREHENSIVE BROKER SERVICE  
TO SECURE ALL YOUR INSURANCE NEEDS. CALL US AND HAVE ONE OF OUR  
REPRESENTATIVES USE THEIR EXPERTISE TO ADVISE ON YOUR PARTICULAR  
NEEDS AND TAKE ADVANTAGE OF THE DISCOUNTS ON OUR PACKAGE DEALS

**VGL** INSURANCE  
BROKERS PTY. LTD.  
INCORPORATED IN VICTORIA

UNDERWRITTEN BY  
AUSTRALIAN EAGLE INSURANCE CO. LTD.  
INCORPORATED IN VICTORIA



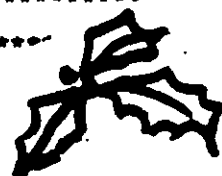
Suite 7, 663 Victoria Street, Abbotsford, Victoria, 3067.

Telephone: (03) 429 5466 Fax: 429 5149

- NOVEMBER 22ND. FINAL GENERAL MEETING FOR 1991. 8.00PM.  
DEEPDENE PARK Hall, MELWAY MAP 46 A 7/8.
- NOVEMBER 23RD (SAT.) RESERVOIR EAST PRIMARY SCHOOL FETE. BOLDREWOOD  
PARADE, RESERVOIR. HUMBER CAR DISPLAY.  
9.30AM - 2.00PM.
- NOVEMBER 23RD - 24TH. THE GREAT AUSTRALIAN RALLY - MELBOURNE TO CAPE SCHANCK.  
ENTRY FORMS AVAILABLE FROM IAN FOREMAN.
- NOVEMBER 24TH. 10TH ANNUAL HISTORIC COMMERCIAL VEHICLE DISPLAY.  
INTERNATIONAL TRUCKS, PRINCES HIGHWAY, DANDENONG.  
MELWAY REF. MAP 90 G11. ENQUIRIES (03) 752 0057.
- NOVEMBER 25TH (MON). A.O.M.C. DELEGATE'S GENERAL MEETING. 8.00PM  
PROGRESS HALL, TRUGANNI ROAD, CARNEGIE.
- DECEMBER 1ST. CHRISTMAS BREAK-UP LUNCHEON AND PRESENTATION DAY.  
LAKE SIDE BISTRO, EDWARDES STREET, RESERVOIR.  
SEE BELOW FOR DETAILS. PLEASE TELL US IF YOU  
PLAN TO ATTEND. PH: (03) 435 6354.
- \*\*\* 1992 \*\*\*
- JANUARY 24TH. FIRST GENERAL MEETING FOR THE YEAR. DEEPDENE HALL.  
8.00PM. WE WILL TRY TO ARRANGE A SPEAKER FOR THIS  
MEETING.
- JANUARY 26TH. CAVALCADE OF TRANSPORT. ALEXANDRA GARDENS DISPLAY  
FOLLOWING CAVALCADE ALONG SWANSTON STREET.  
APPLICATIONS FOR THIS EVENT CLOSE ON NOV. 30TH.  
SEE ITEM IN THIS MAGAZINE.
- FEBRUARY 9TH. ANNUAL "PICNIC AT HANGING ROCK". SEE THIS HUMBERETTE  
FOR INFORMATION. CLUB MEETING POINT WILL BE ADVISED  
IN THE JANUARY MAGAZINE.
- FEBRUARY ? ANNUAL ROOTES GROUP "G-T" DAY. ORGANIZED BY S.A.T.O.C.
- FEBRUARY 28TH. GENERAL MEETING FOLLOWED BY ANNUAL GENERAL MEETING.
- MARCH 7TH - 9TH LABOUR DAY WEEKEND. ANNUAL CASTERTON MOTOR RALLY.  
DETAILS FROM RALLY DIRECTOR, JIM KENT. (055) 81 1414.
- MARCH 27TH. GENERAL MEETING. DEEPDENE PARK. 8.00PM.
- APRIL 17TH - 20TH. EASTER. NATIONAL HUMBER RALLY AT BROKEN HILL.



## CHRISTMAS BREAK-UP.



- WHAT'S ON:** BREAKUP PARTY; PRESENTATION OF AWARDS; DRAWING OF CHRISTMAS HAMPER.
- WHERE:** EDWARDES LAKE BISTRO (PRIVATE SECTION). OPPOSITE EDWARDES LAKE  
RESERVE AND YACHT CLUB. MELWAY 18 D/5.
- WHEN:** SUNDAY, DECEMBER 1ST - 12.00PM TO 4PM. MEET NOON IN HOTEL CAR PARK.
- COST:** APPROX. \$14-0 PER HEAD PLUS DRINKS. SMALL CHILD'S MENU.



NATIONAL RALLY



BROKEN HILL, EASTER WEEKEND 1992

# Concours d'Elegance

The following is a summary of the results achieved on Concours d'Elegance and Display Day, 1991.

Congratulations to all these winners;

MASTER CLASS: Kevin Megee - Series V SS. ....499 points.  
SERIES CLASS: Ian & Anne Wild - Series 1V SS. .... 479 " "  
MARK CLASS: No entry  
PRE-WAR : Bob Kennedy - 1934 Snipe 80. .... 476.5 points.  
VOGUES: Karl Wild - Series 11 Vogue ..... 473.5 " "  
CLUB CHAMPION: Keith Willimott - MK 1 Sceptre ..... 503.5 " "

\*\*\*\*\* PRIDE OF OWNERSHIP WINNER: Vic Wilson - Series 1V SS.

POPULAR CHOICE VOTING: HUMBER: - Ron Forth - Super Snipe Ambulance  
Bob Kennedy - 1934 Snipe 80 equal 1st.  
OPEN: - Daimler EIX 710

BEST PRESENTED DISPLAY HUMBER:

SUPER SNIPE: Nat & Delsie Hanlon - Series 1V SS. ... HVL 296  
HAWK: Keith Willimott - Ser 11 Estate ... HH 220  
VOGUE: Graham Hardy - "VOGUE 1"

## CHRISTMAS HAMPER



RAFFLE TICKETS IN LAST HUMBERETTE.

DRAWN SUNDAY DEC. 1ST. .

Please return butts etc. to: HCCV CHRISTMAS HAMPER, 23 HIGH ST. WATSONIA. 3087.



P.O. Box 95  
NORWOOD S.A.5067  
1st October 1991



Dear President,

### 1992 NATIONAL RALLY

Our club is pleased to advise that we have already received 40 definite registrations for the National Rally.

This letter is to advise that the cut off date for Registration is **30TH NOVEMBER 1991** without exception. We recommend Members register and if cancellation is necessary the club will consider refunding 50% of deposits paid dependent upon the accommodation venues being able to relet the accommodation.

All deposits received will be acknowledged in writing during October, and late January all entrants will be notified of final meal costings which are to be paid for in advance.

If you should have any queries please do not hesitate to phone me.

Yours in Humbling,

*Wendy Averay*

Wendy Averay (08) 298 2112  
President  
HUMBER CLUB OF S.A. INC

# THE HUMBER CAR CLUB OF VICTORIA INC.

CLUB ADDRESS — 23 HIGH STREET, WATSONIA, 3087

## COMMITTEE

|                         |   |                    |                     |
|-------------------------|---|--------------------|---------------------|
| PRESIDENT               | : | Margaret Willimott | 435 6354            |
| VICE PRESIDENT          | : | Bob Kennedy        | 775 7119            |
| SECRETARY               | : | Ian Foreman        |                     |
| TREASURER               | : | Brian Parkinson    |                     |
| MEMBERSHIP SECRETARY    | : | Graeme Finn        | 497 4231            |
| EDITORIAL COMMITTEE     | : | Barry Bosnich      | (057) 83 1899       |
|                         | : | Nancy Kennedy      | 775 7119            |
| EVENTS DIRECTOR         | : | Mike Dupla         | 561 5072            |
| LIBRARIAN               | : | Dave Danner        | 874 7016            |
| REGALIA                 | : | Vic Wilson         | 478 9352            |
| TECHNICAL ADVISORS      | : |                    |                     |
| - Vogues                | : | R. Dunlop          | 439 7059            |
| - Series V, VA S/Snipes | : | A. Goldman         | (059) 75 8807       |
| - Hawks                 | : | K. Willimott       | 435 6354            |
| - Mk Cars               | : | B. Kennedy         | 775 7119            |
| - General Information   | : | B. Kennedy         | 775 7119            |
| - Auto Electrical       | : | M. Fitchett        | (054) 27 1217 (B/H) |
|                         | : |                    | (054) 27 1411 (A/H) |

## H.C.C.V. MINUTES

### MEETING HELD ON 25TH OCTOBER 1991

Meeting commenced at 8:08pm.

Attendance: As per Attendance Book (28).

Apologies: Ray Webster, F. Stockwin, Allison Bodycome, Bob & Nancy Kennedy, Keith Sparrow, Sylvia Pieterston and Brian Parkinson.

Minutes: Minutes of the last meeting were accepted by Fred Pieterston, seconded by Joan Holmes.

Correspondence: (In) - Daimler Lanchester, Austin A40, The Flying "A", Wolseley Hornet, Austin 7, Chevrolet Car Club, HCC of Australia (NSW), Armstrong-Siddeley Car Club (The Great Australian Rally), C.M.E.C. Newsletter, Rover Torque, Maynes Motor Trimming, HCC of W.A., HCC of Qld (Transmission), The Inverted Commer.

\* Correspondence read - Moved by Peter Davenport, seconded Graham Finn.

Editor's Report: 223 Newsletters were circulated.

Hall Committee Report: Peter Sheldon reported: 1) Fees will remain the same as last year; 2) The cleaning of the building will be fortnightly instead of monthly; 3) Inner ground parking restrictions will be imposed. Suggested procedure is to issue parking permits. Possibly club members to display a sticker on their windscreens. The Deepdene Hall Committee are waiting for feedback from the various clubs. The HCCV agrees with the parking permit scheme.

Social Report: Bill Holmes reported on the Footscray Centennial Day. It was a tremendous success. Fourteen (14) Humbers were present. It was an excellent day, enjoyed by all. Bill also mentioned the Geelong and District Festival for next year.

Ian Foreman reported on the Mornington Peninsula Bay-to-Bay Rally. It was a great success - 83 cars in all and 2 Humbers present; Bob & Nancy Kennedy's 1934 Snipe and Ian Foreman's 1956 Super Snipe.



Margaret showed the members a beautiful book, purchased by the club called "Wheels in Victoria". This book was produced by co-operation of the Harold Paynting Trust and the James Flood Historic Guild. This book is for members to enjoy; it is truly a heritage publication.

**Librarian's Report:** Dave Denner reported that 5% of books borrowed by club members are not returned. Some manuals have been out on loan since 1990. Dave Denner moved that:- Library loans after a period of one month, the borrower should notify the Librarian if required for an additional month. If the borrower fails to make arrangements for that additional month, they will incur a penalty fee of \$2.00 for the extended month. It will double up for each additional after that. Dave proposed to introduce this at the beginning of the next club year (March 1992). Other suggestions were put forward as follows:-

Pam Batten suggested that people pay an initial deposit on the manual/books borrowed.

Graham Finn suggested sending a reminder to the borrower and then publish the name in the newsletter as a reminder.

Michelle Foreman suggested that the club member living nearest the borrower go and pick it up.

Ian McDonald suggested an ammendment to a maximum level on the loan peanlty.

It is suggested that the amount be discussed by the Committee. A vote was given on the original move by Dave Denner.

**Original Motion:** Twenty-five (25) persons in favour of original motion and one (1) person against (25/1). The ammended motion (proposed by Ian McDonald) seconded by Keith Willimott.

Eighteen (18) persons in favour and one (1) against (18/1). This second vote suggests a small shift from the original motion.

It was finally moved that Dave's original move be adopted and implemented.

**General Business:** Margaret announced the cut-off date for the HCC National Rally (Broken Hill) is the 30th November 1991.

Meeting closed at 9:25pm and supper was served.

\*\*\*\*\*

## THE HUMBERETTE

### PRESIDENT'S REPORT

NOVEMBER, 1991

Hello all! Well, after the very successful Concours, what more can I say but "thank you" to all who helped make the day one of our best events for some years.

I felt immensely proud of you all and of the atmosphere of friendly co-operation and competition that filled the day's proceedings. Congratulations everyone!

There was a magnificent line up of Humbers this year - around 40 to 50 cars and these were complemented by a small but equally stunning display of vehicles from visiting clubs. Series Super Snipes predominated amongst the Humbers with a sprinkling of Vogues, Sceptres, Mark Snipes and a lone Hawk (where were all the little "birds"?).

Most eye-catching of all were the two "grand old ladies" from the 1930's - Bob Kennedy's 1934 Snipe and ex-member Norm Watt's Snipe 80 Sport Saloon. Also attracting considerable attention was Ron Forth's restored Series Snipe Ambulance - now carrying some interesting "accessories!"

Country Humbers converged on Melbourne from various centres. Doug Coulter's Super Snipe from Casterton (aided and abetted by Jim Kent!) provided some stiff Concours competition. Wow! What a dazzling beauty (the car of course!!). I would like to especially thank all members who took the trouble to drive down from the country - your support is greatly appreciated.

There are several other items which I want to discuss with you this month. The first concerns changes to our Technical Library borrowing conditions. Following considerable discussion at the last meeting and to ensure that the books are readily available to all we will, from next year, adhere strictly to the new borrowing rules.

These are; Initial loan of four (4) weeks - one extension of loan may be arranged through the Librarian. After this period a LATE RETURN FINE will be incurred. Amount to be at Committee's discretion. I urge your co-operation in this matter. It is also planned to publish "late returnees" in the Humberette. Hopefully such an action will never be necessary!

Whilst speaking of system charges I should also mention proposed changes to parking at Deepdene Hall next year. To discourage over-zealous "parking in the park" by Health Studio clients?? (well, you know what I mean!!) a "permit system" is under consideration. More of this later.

I am publishing without comment (hopefully in this Humberette) a recent letter from Doug Shone. The issues Doug raises have crossed many minds at different times - a practical solution however still eludes us. I will look forward to receiving your comments over the next few months.

Finally, a big welcome to returning member Syd Humphries from Bright and congratulations on being our 200th member for 1991.

Please take the time to read the notices, reports and coming events pages this month - there is much of importance happening.

It's a little early but may I wish you all a safe and happy holiday period and successful Humbering into 1992.

Margaret.

\*\*\*\*\*

#### NOTICES & SOCIAL NEWS

1. NATIONAL RALLY - EASTER 1992: Entries for this Broken Hill Rally close on November 30th. If you have not yet forwarded your Application Form and Deposit (\$50) to the S.A. Club please do so pronto! Additional entry forms are available by ringing (03) 435 6354 should you have lost your original. The contact phone number in S.A. for further information is Wendy Averay (08) 298 2112.

2. PRESENTATION DAY AND CHRISTMAS BREAK-UP PARTY: This is on December 1st at the Edwardes Lake Bistro, Reservoir. Details are on the Calendar Page. No deposit is necessary but it would help with catering and setting up arrangements if you could notify us beforehand on Ph: (03) 435 6354 if you plan to attend.

3. DISPLAY DAY - EAST RESERVOIR PRIMARY SCHOOL, Boldrewood Parade, Reservoir, Saturday November 23rd - 9:30/10:00am until approximately 2:00pm: This is a special request to mount a Humber display at the Primary School Fete and to join in the activities of the day. (Also another chance to show off those well polished Humbers (Margaret?).

4. AUSTRALIA DAY (SUNDAY JANUARY 26TH, 1992 - CAVALCADE OF TRANSPORT: Entries for this event MUST be on the Official Entry form (available from the club). Entries close on November 30th. See details in this magazine.

5. CUP DAY DISPLAY - WESBURN: Thank you to Ron and Eleanor Forth whose Humber Ambulance attended this day in aid of the local hospitals. Thanks also to the "support vehicle" provided by Bob Bruce!

6. BOOK ORDERS - HUMBER 1968-1976: We are endeavouring to get these in time for Christmas but I can't guarantee it. They have been ordered AIR MAIL and the total cost will be around \$50 each (depending on whether or not we have to pay import duty). There may be one or two spare copies for those who have not placed a firm order.

7. BEST WISHES TO MIKE DUPLA and hope your hospital stay is short and successful.

8. HAPPY CHRISTMAS EVERYONE!

#### KENNEDY'S KLANGERS

The year is just about all over bar the shouting and HIC....! I hope everyone remembers that if they do have a 'wee' drink, I would hope they don't drive.

Our Club Concours is now over and all went well. From the section where I was involved in the judging, I would like to thank Don, Lyn, Tom, Ian and Peter for the way they went about their job. You may or may not agree with the end results but that's the way it comes out in the wash isn't it? So once again 'thank you'. But let's not forget the judges for the other sections and all the people who helped out throughout the day. I know the kitchen staff hardly stopped all day, so to all those people 'thank you' from the bottom of our hearts.

In the last newsletter James Kent asked whether his 1933 Pullman is the only '33 around. Well, here we go Jim; first there are a few Snipes and Pullmans around throughout Australia. In Victoria at this moment I am helping someone restore his father's Snipe. This car is only weeks away from going on the road and he intends to join the club when it finally hits the road.

On the Mornington Peninsula area a Pullman is hiding, this car came from India many years ago, it is fitted with a diff that only gives it a top speed of 45mph. It also has special fittings inside. No doubt there are others somewhere.

John Berries' Humber 12 was sold to Robin Shephard up in Katherine in N.T. Robin has a 1926 9-20 Roadster, Mk 1 S/Snipe, John's "12" plus other models. I have tried to persuade Robin to join the club and though he says he will, nothing has become of it to date.

Well, I'll sign off now - love to you all, have a good Christmas and New Year - that is if I don't see you at the presentations.

Regards,

Bob Kennedy.

#### MANUALS & BROCHURES: \*\*\*\*\*

1953 Hawk Mk 5 Owner's Manual, mint \$22.

1961/62 Series 3 S/Snipe Owner's Manual, excellent condition, \$22.

1964/65 Series 4 Owner's Manual, mint, \$22.

1948 Hawk 20-page colour catalogue, fine artwork, mint, \$35.

12" x 20" colour 1960 Hawk brochure, fair condition, \$12.

Also, 1960 Hawk brochure, reasonable condition, \$18.

\* Prices include packaging and postage.

Contact: J. Thomson, 11 Austin Crescent, St. Georges, South Australia, 5064.



### FOR SALES

Newhead gasket and valve grind kit, suit side valve Mark S/Snipe, \$50.  
Contact: D. Hart, Ph: 885 3576.

2 Series 5 S/Snipes - 1 good body, 1 'so-so', black and green, new motor in one \$650 o.n.o. both. Contact: J. Blackmore, Warnambool, Ph: (055) 62 2127 or (055) 62 3072.

Series S/Snipe 5A - white, red upholstery, good condition all round, new tyres, complete overhaul of braking system, no reg, ready for r.w.c., \$3,000.  
Contact: G. Wheeler, R.M.B. 1285, Tongala, Ph: (058) 58 2369.

Series 3 S/Snipe - good motor, front damage, will sell as parts car, offers.  
Contact: Mr. Eail Papp, 56 Springs Road, Clayton. (RK)

Series 5A - 12mths reg, r.w.c., white, red interior, v/good condition, new tyres and exhaust, two owners only, car at Rosanna, \$4,000.00. Contact: Mr. Tedge, Ph: 459 9952. (RK)

1951 Snipe windscreen as new, \$30. Contact: Mr. McDonald, 231 Warigal Road, Burwood, Ph: 808 2087. (RK)

5A parts car, offers, runs, good motor, diff and trans. Contact: Martin Malick, Ph: 369 4827. (RK)

185 x 15 mich radial tyres, brand new, four at \$120 each. Contact: Allan Bridges, Ph: 336 7820. (RK)

1960 Hawk - auto, reg July '92, new windscreen, \$2,000 o.n.o. Contact: Mr. Trehella, Ph: 890 5681. (RK)

1964 Vogue - auto, reg May '92, good tyres, excellent mechanically, car at Eltham, \$1,000 o.n.o. Contact: Susan, Ph: 439 9382. (RK)

Series V S/Snipe - 6mths reg, some rust, good motor and gear box, car at Malvern, \$1,000 o.n.o. Contact: Greg, Ph: 571 5008. (RK)

1964 Vogue - reg June '92, no r.w.c., some rust, lots of spares, car at Chadstone, \$900 o.n.o. Contact: Tom Clowes, Ph: 807 8674. (RK)

MK 4 S/Snipe - re-built motor, new clutch, brakes and seals, tyres O.K., body has been rubbed down ready for painting, car complete, some body parts off, car at Frankston, \$1,000 o.n.o. Contact: Fred Pieterse, Ph: 781 5169. (RK)

1965 Vogue - in concours condition, four spare engines and heaps of other parts, car at Ballarat, \$4,500 o.n.o. Contact: Vic Wilson, Ph: 478 9352.

FREE FREE!! 1964/65 Vogue - auto, green, red interior. Contact: John Coston, Ph: (059) 42 6266, Pakenham. (RK)

GIVE-AWAY! B/W auto trans from Series 5, was working before accident, also rear window and assorted chrome strips from same.

ALSO:-

WANTED! - 2 wheel trims and hubcaps for Series 4. Contact: J. Rootes, Lot 49 Ellimynt, Ph: (052) 31 2866.

Workshop manual for Humber Series 5; mint condition; bound photocopies of spare parts manual Series 5; plus Driver's Handbook - \$50 the lot - will not separate. Contact: P. Shelden, Ph: 818 5829 (phone after 6:00pm).

R.M.B. 5532

Balingaroo  
3249.

Phone 052-338413

27/10/91.

Dear Margaret,

I would like to advise you of my new postal address and phone number which appears at the top of this letter.

Secondly I have enclosed a cheque and raffle ticket butts for the Christmas Hamper

Thirdly I would like to make a suggestion that the address of all the Committee Members should appear along with the phone numbers that currently appear in "The Humberette" under the Club's address.

Lastly I read the letter from Jim Kent in the current issue of "The Humberette" and it has brought back to me a suggestion I made through the magazine a couple of years ago

That was that there should be a world wide register made up of all the Humbers that still exist regardless of condition.

When I was a member of the Post Vintage Humber Car Club (U.K) Peter Noonan was trying to make up a list of early Humbers that still survive but I haven't heard of this list appearing in any of our Australian Humber Car Club Magazines yet or "Old Faithful" (U.K).

This leads to another idea I mentioned once, and that was, to have an Australian <sup>or Australasian</sup> Humber Car Club consisting of all the state Clubs and the New Zealand Club combined. Each Club could still function as is, but there would be several representatives from each Club to form The "National Clubs Committee". By being a member of a State Club <sup>this</sup> would also give

you membership to the "National" Club. By calling the Club Australasian we wouldn't upset the N.S.W. members.

Probably one of the greatest benefits this would give us State Club Members would be a greater list of people owning cars similar to what we own.

We already have a National Rally, in place so I feel that an "Australasian Club" would be another step to bringing all Humber owners in this part of the world together.

I am sure the P.V.H.C.C. in the UK would also be interested in having their membership list included in a National List.

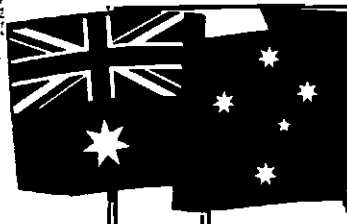
I hope this letter helps to encourage others to give some thought to my suggestion and that we as Club Members can start the wheels rolling in this direction.

I would be willing to give any assistance that would be needed to set up an Australasian Club.

Yours Sincerely  
Doug Shone

P.S. Margaret

I still have my Humbers and I hope I won't have to offer them for sale again due to financial difficulties as I did several months ago.



# Public Transport Corporation

## CAVALCADE OF TRANSPORT

### AUSTRALIA DAY . JANUARY 26

*The Australia Day Committee (Victoria) and the Federation of Veteran, Vintage & Classic Vehicle Clubs invites you to participate in Melbourne's most exciting exposition of historic vehicles ever assembled.*  
**Australia Day Sunday 26 January 1992.**

*Location - The Cavalcade of Transport will depart from the top end of Swanston Street to Alexandra Gardens. Vehicles will then form a memorable display throughout the day on Alexandra Avenue and surrounds.*

*Other attractions - An International Concert, theatrical displays by the Re-enactment Society, an International Food Fair and the Light Horse Brigade are some of the highlights provided during the day by the Australia Day Committee (Victoria).*

*A Commemorative Badge - will be awarded to each participant in the 1992 Australia Day Cavalcade of Transport and Vehicle Display.*

#### ABOUT THE EVENT - CAVALCADE OF TRANSPORT

It will be a memorable beginning to Australia Day. The **Public Transport Corporation Cavalcade of Transport** is the largest planned assembly of vehicles ever staged in Melbourne. This astounding collection will feature the enchanting 'Horse Trams' of the 1890's through to the first locally manufactured Ford Falcon from the 1960's.

A range of over 20 vehicles from the Melbourne Fire Museum dating back to 1851; horse drawn steam pumpers, a 1911 Arrow that was a converted Belgian military vehicle once used by Dame Nellie Melba.

The **Public Transport Corporation Cavalcade of Transport** will bring together no less than 30 organisations, clubs, societies and foundations. The spectacle will see over 1000 vintage, veteran and speciality vehicles from Australia's past.

This astonishing chronological journey begins at the top of Swanston Street and makes its way down the **Public Transport Corporation Cavalcade of Transport** route passing the V.I.P. viewing area outside the Arts Centre; then to its static display area in Alexandra Avenue.

It is desirable that all participants are dressed in clothing of the period appropriate to the year of the vehicle.

As parking space is limited **ONLY** vehicles which are actually entered on the official Entry Form will be accepted. **ENTRIES WILL NOT BE ACCEPTED ON THE DAY OF THE EVENT AND WILL BE REFUSED ENTRY TO THE PARKING AREA.** Entries postmarked after 30 NOVEMBER 1991 will **ONLY** be accepted if space is available. Your official receipt will be required in order to gain entry to the Cavalcade and the parking area. **PHOTOCOPIED FORMS WILL NOT BE ACCEPTED.**

# The American, British, European, (and all other makes) Giant Motoring Show

PRESENTED BY - THE ASSOCIATION OF MOTORING CLUBS

at **Kingston Centre**

Warrigal Road, Cheltenham

**SUNDAY**  
**23rd FEBRUARY**  
**1992.**

All Clubs Welcome!

WATCH 'THE AGE' VINTAGE COLUMN FOR MORE DETAILS

**BADGE PRE-BOOKING ESSENTIAL**  
**SEND \$10.00 DEPOSIT TO**  
**8 FARLEIGH AVE. BURWOOD. 3125**

**(MAKE CHEQUES PAYABLE TO A.O.M.C.)**  
**SMALL BALANCE REQUIRED ON COLLECTION**

**TRADE STALLS WELCOME**

**FURTHER INFORMATION FROM (03) 808 4117**





3RD ANNUAL RALLY AT CASTERTON  
LABOUR DAY WEEKEND - MARCH 7TH, 8TH, 9TH 1992

CONDUCTED BY  
CASTERTON MOTOR ENTHUSIASTS CLUB

- \* TOURS OF AUSTRALIA FELIX
- \* PRESENTATION DINNER/DANCE
- \* VAST ARRAY OF AWARDS

CONTACT : JIM KENT  
RALLY DIRECTOR,  
P.O. Box 60,  
CASTERTON. 3311

Phone (055) 81 1414

## ***Picnic at Hanging Rock***

Sunday, February 9th, 1992

### **The Macedon Ranges and District Motor Club**

proudly announces  
the fifth annual Picnic at Hanging Rock.

All 'special interest' vehicles are welcome, regardless of country of origin, and irrespective of whether original or modified.

There will be the usual activities for children, races, games and competitions. If you feel fit, you may like to climb the rock! 1992 will also see our second rocker cover racing championships, so make sure to bring your rocker cover racer!

Our club does not charge an entry fee for the picnic. There is an entry fee to the Hanging Rock Reserve, but this is controlled by the local shire council, and we do not take any money from the gate. We recover our costs thanks to the generosity of our sponsors and through our raffle, which is held on the day.

In order to try and alleviate some of the traffic problems of previous years, we would like display vehicles only to enter by the south gate, and moderns and other spectator vehicles to enter by the north gate. We hope this doesn't inconvenience anyone too much, and that the improved traffic flow far outweighs any problems this may cause.

It is not necessary to book for the picnic, but once again we stress that if you wish to park as a group, you must arrive as a group. It is impossible for us to hold places for people.

There are limited bbq facilities at Hanging Rock, you are welcome to bring your own. Food and drink will be available on the day.

Trophies will be awarded in several categories voted on by the entrants themselves.

Any clubs wishing to include their badge in a display are asked to bring them along.

A limited edition souvenir badge is being produced and may be purchased on the day.

We hope to see you there!

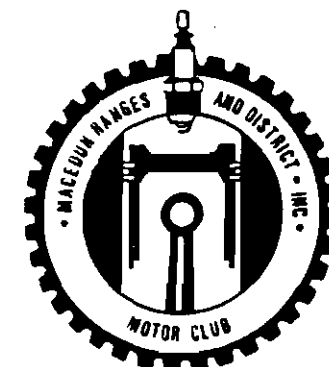
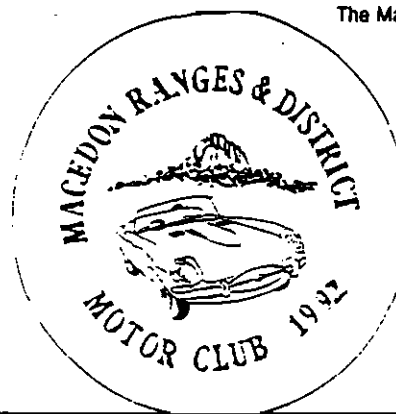
Gates open 7.00 am

Presentations 2:30pm

President: Gary Johnstone  
(054) 272 900 (ah only)

Secretary: Graeme Lemin  
(054) 295 725

The Macedon Ranges and District Motor Club  
C/- Post Office  
Romsey, 3434



## PRACTICAL CLASSICS BUYING FEATURE

# The Humber Super Snipe MkIV

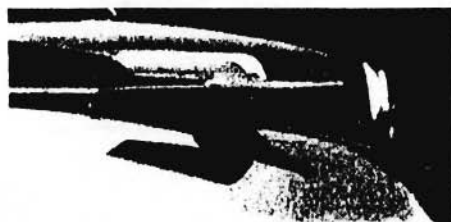


*Nostalgic for the fifties — looking for something a bit out of the ordinary? This flagship of the post-war Rootes Range can still be found and prices are refreshingly low.*

Enthusiasm for classic cars came a bit late for some of the mass-produced saloons of the early fifties and it is only recently that interest in the Mark HUMBERS has begun to show the first signs of growing. Those considering buying a Mk IV may have to make full use of membership of the Post Vintage Humber Car Club, sundry columns of classified advertisements and be prepared to go out and about looking for the right car.

### The Background

Before and during the vintage period Humber

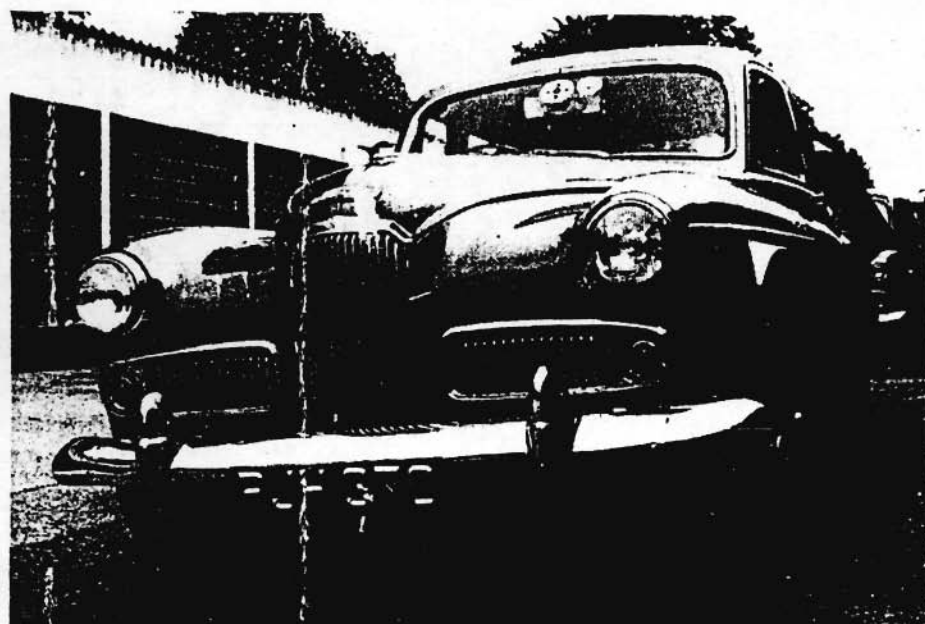


was a highly respected make, but during the thirties, when the firm were in trouble, the name was acquired by the Rootes brothers who were shopping for respected middle-quality "names". Being marketing, rather than engineering people the Rootes were not above using the Humber name to give an image to some fairly unremarkable but quite worthy models which often borrowed bits and

pieces from the Rootes Group's commercial offerings.

After the war when demand for new cars far out-stripped supply the Humber model range was not far removed from the pre-war range if one looked below the surface. Front suspension was independent but incorporated a transverse leaves spring arrangement which was a bit old-hat and the side-valve six cylinder engines of 4,086c.c. (the Hawk used a small bore 1,998c.c. four) may have had torque and smoothness but only developed 100 brake horsepower. Over and above these considerations Rootes were well aware of the demand for the wider, smoother and more integrated shape demanded by the buyer they were aiming for.

A new chassis was designed to incorporate



*The impressive frontal styling of the Super Snipe can be summed up in one word — imposing.*

coil sprung front suspension and an engine moved further forward in the wheelbase to increase passenger space. Incorporating an engine used in Commer lorries, provided a very sound 4,138.c.c. o.h.v. six cylinder described as the "Blue Riband" engine, brought the power up to 116 b.h.p. at 3,600 r.p.m. Maximum torque came in at a mere 1,400 r.p.m. and carburation was the responsibility of one down-draught Zenith or Stromberg.

For the body Humber referred to the current Hawk. This was a full-width body with running boards coyly concealed below the bottoms of the doors and with the longer bonnet and front wings called for by the bigger engine, the Super Snipe styling was quite successful and the cars that survive certainly have presence and turn heads.

Contemporary road testers and present day owners agree that the Mk IV Super Snipe is rather a pleasant car to drive with surprisingly good road behaviour. Capable of carrying five or six in comfort and attaining 90 m.p.h. the Humber had a lot to recommend it. The car weighed about 36 cwt yet it would reach 60 m.p.h. in 16 seconds from rest and that was not at all bad until one remembers that the Jaguar Mk VII, introduced in 1950 had so much more to offer.

From the introduction of the Mk IV Super Snipe in 1952 until the end of production in 1956 it is believed that approximately 13,500 were sold — some of the cars being exported. That figure may not seem particularly creditable at a time when a sellers' market existed, but there were a number of contenders for the large car market with British rivals from Daimler, Jaguar, Alvis, Armstrong Siddeley amongst others.

## Today

Turnouts at various classic car events have included some staunch Mk IV Super Snipe

owners over the past eighteen months and although perhaps only fifteen examples are owned by members of the Post Vintage Humber Car Club it seems certain that more are appearing and are waiting to be found.

If you do "discover" a Mark car examine it



very carefully before committing yourself.

Prices are low and the reasons for that include severe spares shortages, heavy fuel consumption and serious rust problems.

## On the Road

If the engine, suspension and brakes are in good order the Humber Super Snipe should be rather pleasant to drive. The gearchange and the general low-revving characteristics of the engine do not encourage using the car as a sports car, but the ride and road-behaviour are better than average for the period and it is a good car for long distance work provided one can live with the fuel consumption.

## Production Changes.

The Mark IV Super Snipe had a comparatively short model life (1952-1956) and no radical changes were made throughout production, however, the dashboard was revised for the 1954 model with some of the painted metal of the earlier cars being replaced by woodwork. This rather reflected the fact that customers for a car then costing £985 expected a more traditional interior than one lower down the scale.



## Engine and Gearbox

The engine and gearbox, unless badly abused and neglected, are likely to have survived well as one might expect from their close links with commercial vehicles (the engine was still earning its keep in Commer light lorries into the mid-sixties). One point raised by owners is that the car was blessed with a steering column gearchange (four speeds) which they suggest is rather vague and resists attempts to hurry changes, however, the Humber change is no worse than other Routes models of the time.

## Chassis

The chassis is also said to last well and to have no pronounced weak points, that does not mean it is everlasting and it should be inspected carefully particularly if the car is thought to have lived rough. Check the front suspension and steering carefully and while doing so don't overlook the condition of the exhaust system which might be difficult to replace and of the tyres which are 7.00 x 15 and could be very hard to come by.

## Bodywork

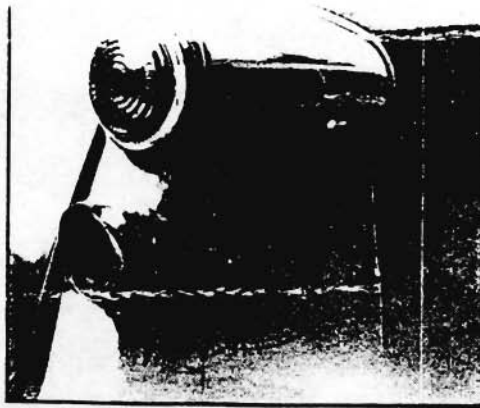
The owner of a Mark IV Super Snipe was frank enough to admit to us that by the time they were ten years old, many of the cars were seriously rusted below the waist-line. Very few manufacturers in the early post-war period seem to have understood very much about rust protection and water drainage was largely ineffective — Humber suffered as much as any other make. You are very unlikely to find a rust-free Super Snipe, but you should look over any car you contemplate buying very thoroughly to make sure that it is at least within your restoration capabilities and budget.

Panels are not available, bright metal parts, door seals and trim items are all problem areas — we do know that some owners have "robbed" the good bits from otherwise unrestorable cars to use on their "good" Super Snipe. We have not been able to find any spares specialists for the Mark cars and those restoration firms that will take on renovation are likely to stress to Super Snipe owners that bills will easily reach treble the value of the car — it is a big car and probably only a prospect for the skilled and experienced amateur to attempt.

If you have not become disheartened yet turn to the interior. We have to keep issuing the same warning to readers contemplating buying and restoring a large car — re-trimming, or even repairs to the existing trim take a lot of time, the materials are sometimes hard to locate and the professionals will be justifiably expensive. On the Super Snipes at least the wearing surfaces are leather faced — if you are really lucky they may have been protected by seat covers for at least part of the



car's life. Headlining repairs or replacement are also a problem, but the carpets should be within the scope of most owners if they can find the correct coloured carpet. If it is any compensation to those would-be owners who are now depressed, we would point out that the trim on the Mark IV Super Snipe is likely to be cheaper and easier to restore than that of a Jaguar.

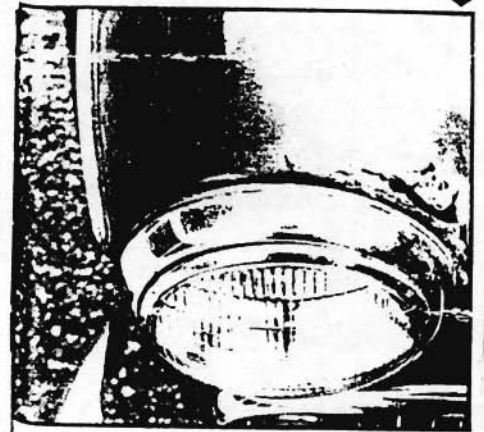


The lighting equipment is probably replaceable — needless to say Humbers did not leave the factory with rear lights held in place with tape. The rust in the wing at the base of the lamp plinth is worth investigating.



If this is what you find when you open the doors of a Humber Super Snipe, do not consider buying the car unless you have the ability, and determination to carry out a re-build of all the bodywork below the waistline. The chances are that the chassis will be relatively good, but the complete lack of many new bodyparts means that you will have to make steel sections.

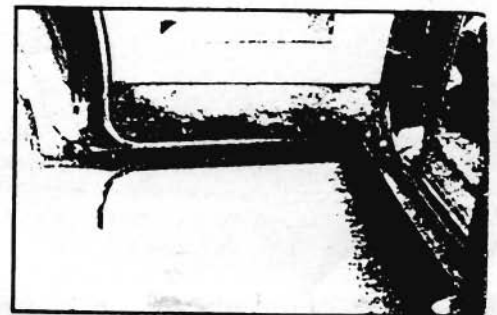
The running boards are exposed when the doors are opened. Rot is often well-advanced and may well have seriously weakened the centre door pillar and begun eating away at the edges of the floors. Rectification involves a great deal of work.



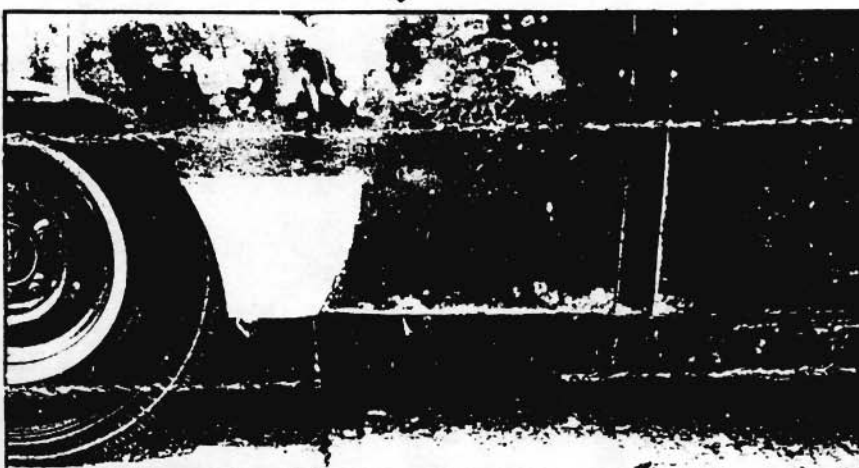
Don't be surprised if you find that the mud trap around the headlamps has caused problems — if repairs have been made ensure that they have been carried out properly and that new metal has been let in rather than a layer of filler used to disguise the problem.



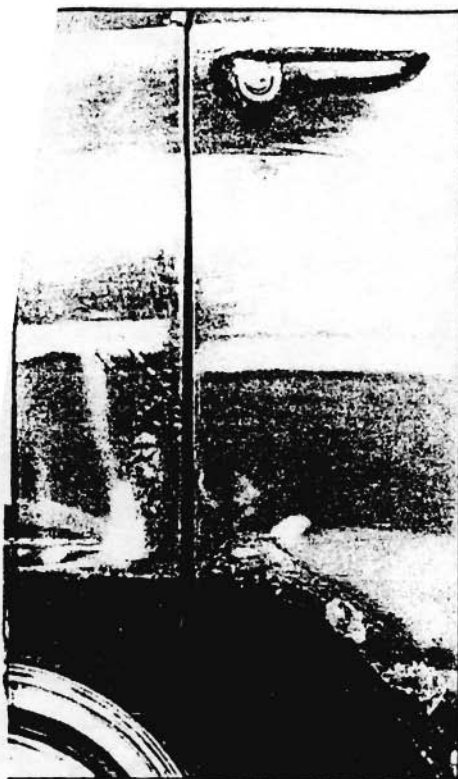
This is what we mean about the sills cum running boards rotting away behind and below the doors and often leaving the centre pillar waving to and fro.



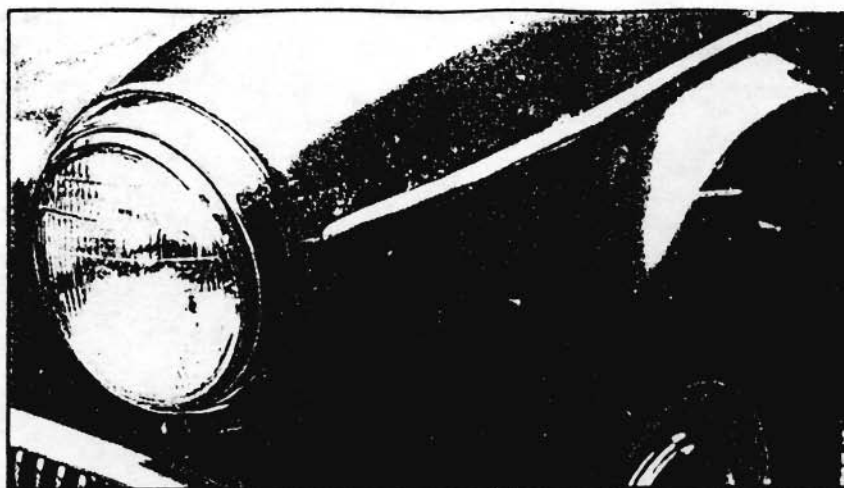
Not unexpectedly with a rust problem in the lower part of the body the bottom of the doors do not escape. Repairs would involve replacing sections of the internal pressings of the door and at least partial re-skinning of the outer surface. Note the state of the door trim.



The boot space is generous, but the floor edges and the wheel arches where they meet the boot floor need checking. Lift out the spare wheel from its well (on this example the well itself is due for repair) and take out any floor covering. Include the bottom, inner face of the boot lid in this examination.

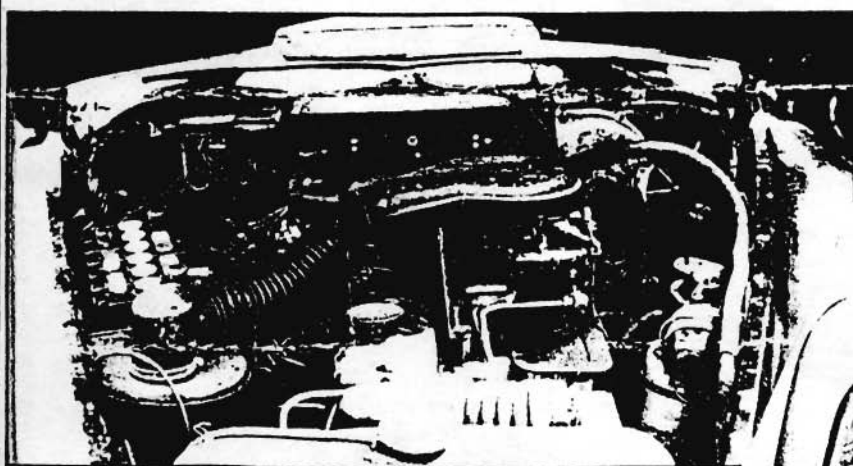
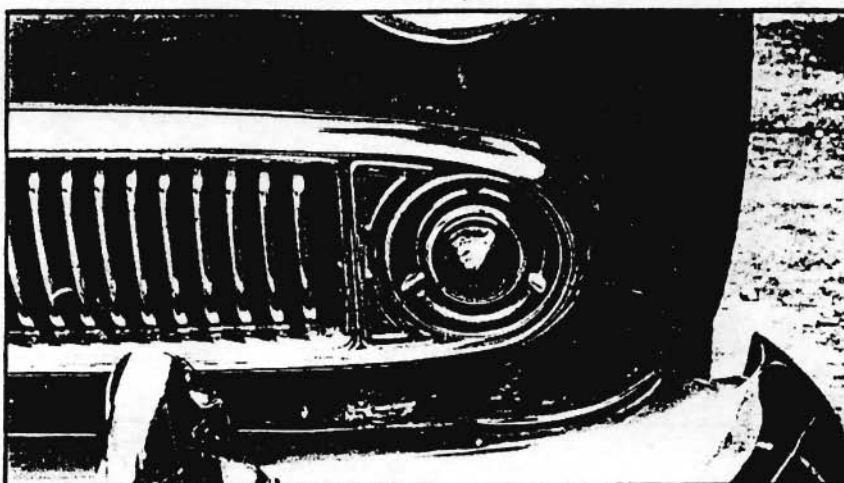


Minor blemishes along the leading and arch edges of the rear wings and the base of the door are to be expected on an unrestored car which has been out of production for almost twenty-five years. That does not mean they can be ignored. Look at the tyres — if you can find replacements they are unlikely to be cheap.



More rust problems are likely to occur at the seams in the front wings below the headlamp and behind the trim strip above the wheel arch. Who said that flared wheel arches were a recent invention? Check that the wheel arch lip is sound.

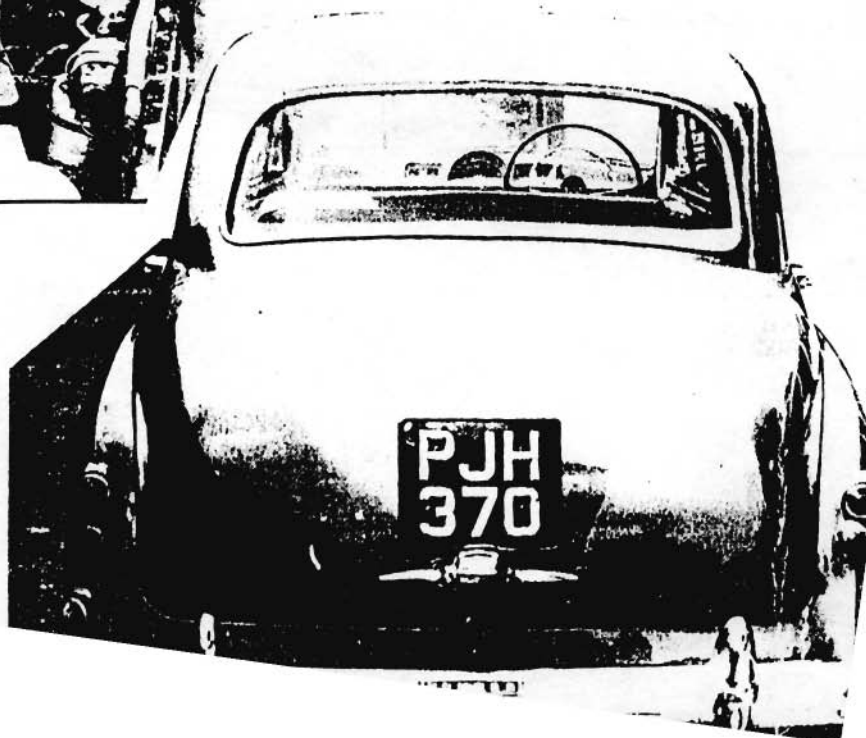
Much of the bright metal trim was either stainless steel or chromium plating over brass and it survives well which is just as well as replacements are only likely to be obtained from other survivors.



The 4,139c.c. engine was the first post-war Humber to be blessed with overhead valves. A straightforward, low output six which lasts well — not surprisingly since it could also be found lurking in Commer lorries up to the mid-sixties. A good battery is essential, but the nature of the

Super Snipe is such that you are unlikely to find many under-bonnet modifications. The carburation does not look ultra efficient and the carburettor must be kept in good condition to keep fuel consumption the right side of 16 m.p.g.

Looked at from any angle there is something very British about the Humber Super Snipe — a combination of simplicity of line and detail design unspoilt by excessive decoration.





# DICTIONARY.

*An explanatory glossary to familiarise  
all with technical terms.*

**AIR STRANGLER.** Another name for the Choke.

**AIR LOCK.** A bubble trapped in a pipe thus blocking flow.

**AMPERE.** The unit of electric current or the rate of flow.

**ARMATURE.** The rotating part which moves within a magnetic field.

**AUTOMATIC TIMING CONTROL.** A centrifugal governor or vacuum unit giving advance and retard of the spark timing.

**AUTOVAC.** English suction tank for maintaining a gravity feed in the carburettor, now superseded by a petrol pump.

**BACKFIRE.** A reverse movement of the crankshaft due to over advanced ignition, not an explosion in the silencer. If there is firing in the carburettor this is spitting back or popping.

**BACKLASH.** The play between two gear teeth. Lost motion.

**BEARINGS.** Cylindrical shell or lining, usually made of white metal, being that part which takes the friction of a shaft.

**BENDIX GEAR.** Automatically engages the self-starter with the flywheel.

**BIG END.** The lower and larger end of the con rods which holds the bearings encircling the crank shaft.

**BORE.** Internal diameter of the cylinder.

**BOSS.** A thickening of metal usually where a shaft is fitted.

**B.P. BRAKE HORSE POWER.** H.P. delivered at the crank shaft. See H.P.

**BRAZING.** Two metal surfaces soldered with a zinc and copper alloy.

**BREAKER.** Contact breaker or interrupter in distributor.

**BRUSH.** That part of the apparatus which collects the current from an armature and passes it through to the circuit wires.

**B.S.A. THREADS.** British Standard Automobile are similar to B.S.F. but have smaller nut heads.

**B.S.F. THREADS.** British Standard Fine have more threads to the inch than Whitworths.

**B.S.P. THREADS.** British Standard Pipe Threads are found only on vintage cars today.

**B.S.W.** British Standard Whitworth are a wider thread than B.S.F.

**B.T.U. BRITISH THERMAL UNIT.** Amount of heat required to raise 1 lb. water 1 deg. F.

**BUSH.** Hollow cylindrical one-piece bearing. Usually bronze.

**CALLIPERS.** Compass-like measuring instruments.

**CAM.** An oval shaped steel piece on a shaft used to gain a lifting motion as for the valves; these are usually on the camshaft.

**CAMBER.** A curve or bend, e.g., the camber of the front wheels, springs, or macadamised road surface.

**CARDON SHAFT.** One that transmits power as propeller shaft.

**CASTER.** An inclination from the vertical as the front wheels.

**CASE HARDENED.** Articles treated for longer lasting qualities.

**CATHODE.** The negative pole as opposite an anode.

**C.C.** Cubic centimetres capacity.

**CELLULOSE.** A synthetic finish with acetone, ether, etc., based on a cotton and pigment as most lacquers today.

**CENTRE PUNCH.** A hard steel pointed tool used to start a hole.

**CHAMFER.** The bevelled face on the edge of a piece of metal.

**CHEVRON BEVEL WHEEL.** Its teeth are cut in herringbone pattern.

**CIRCUIT.** The path which an electric impulse travels.

**CLYNOMETER.** Instrument for measuring the steepness of a hill.

**CLUTCH.** A mechanism of plates used to connect and disconnect the power of the engine to the propeller shaft.

**COIL.** A type of transformer which converts the low battery voltage into a high tension to produce a spark.

**COMMUTATOR.** The rotating part of an electric motor to which the armature winding is attached.

**COMPRESSION.** The charge in the cylinders is compressed before firing. Compression is measured in lbs. per square inch an average being 85 lbs.

**COMPRESSION RATIO.** This is expressed in terms of the ratio of the volume of the combustion chamber plus the capacity of the engine to the volume of the combustion chamber. i.e., a 500 c.c. cylinder with a 100 c.c. combustion chamber has a ratio of  $500 + 100$  to  $100 = 6$  to 1.

**COMPRESSION STROKE.** Upward movement of the piston which drives the explosive mixture before it and compresses it in the combustion chamber.

**CONDENSER.** Usually a small cylindrical component on the distributor to prevent sparking across the points and assist the collapse of magnetic field in coil.

**CONTACT BREAKER.** A device in the distributor for making and breaking the low tension of the ignition.

**CONTROL BRUSH.** One of the three brushes in a dynamo controlling the output and is connected to one end of the field winding.

**COTTER PIN.** A flat tapered pin or wedge fitting into a slot such as on valve guides.

**COUNTERSHAFT.** A secondary rotating shaft as in a gear box, taking the power from the engine to transfer it to the propeller shaft.

**COUNTERSUNK.** A drilling to take the head of a screw or bolt.

**COUPLING.** A connection between two parts usually made demountable.

**CRANK BEARING.** Main bearings at each end of a crankshaft and between the throws of the big ends.

**CRANKCASE.** The casing beneath the engine holding the oil and crankshaft.

**CRANK PIN.** The shortest parts of the crankshaft which takes the big ends, i.e., the rotating journal.

**CROWN WHEEL.** A large bevel wheel which connects to a pinion cog.

**COWL.** A continuance of the body around the radiator or dash.

**CUT OUT.** A device that breaks the circuit between the battery and generator so that when the latter stops charging it protects the generator windings.

**DAMPER.** A device for reducing vibration such as a smaller additional flywheel, or a shock absorber to stop rebound in the springing.

**D.C.C.** Double cotton covered wiring.

**DEAD CENTRE.** Points used to time an engine when the piston is either top or bottom of its stroke.

**DECARBONISATION.** Removing the burnt matter in the compression chamber, usually done when valves are ground about every 10,000 miles.

**DECLUTCH.** Disengaging or pressing on the clutch pedal.

**DETONATION.** A stronger knock than pinking, usually caused by some of the mixture becoming heated up by its compression and spontaneously exploding before it is ignited by the spark.

**DEWANDRE BRAKES.** Utilise suction from the engine to apply to the wheels making a gradual pressure to avoid skidding.

**D.C.** Direct current, i.e., flowing in a continuous direction.

**DIE.** Used for re-threading burred screws. The die is held in the die-stock or handle to cut the threads.

**DIESEL.** Compression ignition (C.I.) engines operate on the principle that when a charge of air is sucked into the cylinder it is compressed to become so hot that it will ignite a charge of oil injected therein. No spark is needed. Citroen have made a 14 h.p. Diesel powered car which showed half the fuel cost of petrol though the car cost over £100 more.

**DIFFERENTIAL GEAR.** An arrangement of crown wheels and pinions which enable one half to revolve at a different speed to the other as when cornering.

**DIRECTION INDICATOR.** An illuminated arm which springs out to signal.

**DISTRIBUTOR BOX.** The centre where all electrical leads meet.

**DYNE.** A unit of force, i.e., with a mass of 1 gram will produce in an object an acceleration of one centimetre per second at every second.

**ELECTRODE.** Terminal or post as on a battery or the rod on a spark plug.

**ELECTROLYTE.** Dilute sulphuric acid in the battery, S.G. 1300.

**E.M.F.** Electromotive force, the voltage, the pressure tension.

**EPICYCLIC GEAR.** Planetary type, i.e., a shaft of gears revolve around the circumference of the driving gear. In this system the pedal applies a set of brakes to hold certain gears back. Model T Ford and Willson self changing gears are examples.

**EXHAUST STROKE.** Upward stroke which forces the burnt charge through the exhaust valve.

**FEATHER.** A key that causes a part to rotate with a shaft but at the same time is capable of sliding along.

**FEATHER HEADED BOLT.** One with a lug under the head which will hold it from turning if embedded in a slot.

**DISTRIBUTOR.** A rotating part of the ignition system which takes the high tension lead from the coil and sends the current to each plug.

**DRY SUMP LUBRICATION.** A motor taking the oil from a separate tank and pumping it through its course with a separate pump to draw it back into the reservoir which is not in the sump, hence the oil keeps cooler.

**DYNAMO.** A machine that generates mechanical energy change it to electrical current, i.e., to charge the battery.

**DYNAMOTOR.** A dual purpose machine combining generator and self starter.

# DICTIONARY.

*An explanatory glossary to familiarise  
all with technical terms.*

**AIR STRANGLER.** Another name for the Choke.

**AIR LOCK.** A bubble trapped in a pipe thus blocking flow.

**AMPERE.** The unit of electric current or the rate of flow.

**ARMATURE.** The rotating part which moves within a magnetic field.

**AUTOMATIC TIMING CONTROL.** A centrifugal governor or vacuum unit giving advance and retard of the spark timing.

**AUTOVAC.** English suction tank for maintaining a gravity feed in the carburettor, now superseded by a petrol pump.

**BACKFIRE.** A reverse movement of the crankshaft due to over advanced ignition, not an explosion in the silencer. If there is firing in the carburettor this is spitting back or popping.

**BACKLASH.** The play between two gear teeth. Lost motion.

**BEARINGS.** Cylindrical shell or lining, usually made of white metal, being that part which takes the friction of a shaft.

**BENDIX GEAR.** Automatically engages the self-starter with the flywheel.

**BIG END.** The lower and larger end of the con rods which holds the bearings encircling the crank shaft.

**BORE.** Internal diameter of the cylinder.

**BOSS.** A thickening of metal usually where a shaft is fitted.

**B.P. BRAKE HORSE POWER.** H.P. delivered at the crank shaft. See H.P.

**BRAZING.** Two metal surfaces soldered with a zinc and copper alloy.

**BREAKER.** Contact breaker or interrupter in distributor.

**BRUSH.** That part of the apparatus which collects the current from an armature and passes it through to the circuit wires.

**B.S.A. THREADS.** British Standard Automobile are similar to B.S.F. but have smaller nut heads.

**B.S.F. THREADS.** British Standard Fine have more threads to the inch than Whitworths.

**B.S.P. THREADS.** British Standard Pipe Threads are found only on vintage cars today.

**B.S.W.** British Standard Whitworth are a wider thread than B.S.F.

**B.T.U. BRITISH THERMAL UNIT.** Amount of heat required to raise 1 lb. water 1 deg. F.

**BUSH.** Hollow cylindrical one-piece bearing. Usually bronze.

**CALLIPERS.** Compass-like measuring instruments.

**CAM.** An oval shaped steel piece on a shaft used to gain a lifting motion as for the valves; these are usually on the camshaft.

**CAMBER.** A curve or bend, e.g., the camber of the front wheels, springs, or macadamised road surface.

**CARDON SHAFT.** One than transmits power as propeller shaft.

**CASTER.** An inclination from the vertical as the front wheels.

**CASE HARDENED.** Articles treated for longer lasting qualities.

**CATHODE.** The negative pole as opposite an anode.

**C.C.** Cubic centimetres capacity.

**CELLULOSE.** A synthetic finish with acetone, ether, etc., based on a cotton and pigment as most lacquers today.

**CENTRE PUNCH.** A hard steel pointed tool used to start a hole.

**CHAMFER.** The bevelled face on the edge of a piece of metal.

**CHEVRON BEVEL WHEEL.** Its teeth are cut in herringbone pattern.

**CIRCUIT.** The path which an electric impulse travels.

**CLYNOTER.** Instrument for measuring the steepness of a hill.

**CLUTCH.** A mechanism of plates used to connect and disconnect the power of the engine to the propeller shaft.

**COIL.** A type of transformer which converts the low battery voltage into a high tension to produce a spark.

**COMMUTATOR.** The rotating part of an electric motor to which the armature winding is attached.

**COMPRESSION.** The charge in the cylinders is compressed before firing. Compression is measured in lbs. per square inch an average being 85 lbs.

**COMPRESSION RATIO.** This is expressed in terms of the ratio of the volume of the combustion chamber plus the capacity of the engine to the volume of the combustion chamber. i.e., a 500 c.c. cylinder with a 100 c.c. combustion chamber has a ratio of  $500 + 100$  to  $100 = 6$  to 1.

**COMPRESSION STROKE.** Upward movement of the piston which drives the explosive mixture before it and compresses it in the combustion chamber.

**CONDENSER.** Usually a small cylindrical component on the distributor to prevent sparking across the points and assist the collapse of magnetic field in coil.

**CONTACT BREAKER.** A device in the distributor for making and breaking the low tension of the ignition.

**CONTROL BRUSH.** One of the three brushes in a dynamo controlling the output and is connected to one end of the field winding.

**COTTER PIN.** A flat tapered pin or wedge fitting into a slot such as on valve guides.

**COUNTERSHAFT.** A secondary rotating shaft as in a gear box, taking the power from the engine to transfer it to the propeller shaft.

**COUNTERSUNK.** A drilling to take the head of a screw or bolt.

**COUPLING.** A connection between two parts usually made demountable.

**CRANK BEARING.** Main bearings at each end of a crankshaft and between the throws of the big ends.

**CRANKCASE.** The casing beneath the engine holding the oil and crankshaft.

**CRANK PIN.** The shortest parts of the crankshaft which takes the big ends, i.e., the rotating journal.

**CROWN WHEEL.** A large bevel wheel which connects to a pinion cog.

**COWL.** A continuance of the body around the radiator or dash.

**CUT OUT.** A device that breaks the circuit between the battery and generator so that when the latter stops charging it protects the generator windings.

**DAMPER.** A device for reducing vibration such as a smaller additional flywheel, or a shock absorber to stop rebound in the springing.

**D.C.C.** Double cotton covered wiring.

**DEAD CENTRE.** Points used to time an engine when the piston is either top or bottom of its stroke.

**DECARBONISATION.** Removing the burnt matter in the compression chamber, usually done when valves are ground about every 10,000 miles.

**DECLUTCH.** Disengaging or pressing on the clutch pedal.

**DETONATION.** A stronger knock than pinking, usually caused by some of the mixture becoming heated up by its compression and spontaneously exploding before it is ignited by the spark.

**DEWANDRE BRAKES.** Utilise suction from the engine to apply to the wheels making a gradual pressure to avoid skidding.

**D.C.** Direct current, i.e., flowing in a continuous direction.

**DIE.** Used for re-threading burred screws. The die is held in the die-stock or handle to cut the threads.

**DIESEL.** Compression ignition (C.I.) engines operate on the principle that when a charge of air is sucked into the cylinder it is compressed to become so hot that it will ignite a charge of oil injected therein. No spark is needed. Citroen have made a 14 h.p. Diesel powered car which showed half the fuel cost of petrol though the car cost over £100 more.

**DIFFERENTIAL GEAR.** An arrangement of crown wheels and pinions which enable one half to revolve at a different speed to the other as when cornering.

**DIRECTION INDICATOR.** An illuminated arm which springs out to signal.

**DISTRIBUTOR BOX.** The centre where all electrical leads meet.

**DYNE.** A unit of force, i.e., with a mass of 1 gram will produce in an object an acceleration of one centimetre per second at every second.

**ELECTRODE.** Terminal or post as on a battery or the rod on a spark plug.

**ELECTROLYTE.** Dilute sulphuric acid in the battery, S.G. 1300.

**E.M.F.** Electromotive force, the voltage, the pressure tension.

**EPICYCLIC GEAR.** Planetary type, i.e., a shaft of gears revolve around the circumference of the driving gear. In this system the pedal applies a set of brakes to hold certain gears back. Model T Ford and Wilson self changing gears are examples.

**EXHAUST STROKE.** Upward stroke which forces the burnt charge through the exhaust valve.

**FEATHER.** A key that causes a part to rotate with a shaft but at the same time is capable of sliding along.

**FEATHER HEADED BOLT.** One with a lug under the head which will hold it from turning if embedded in a slot.

**DISTRIBUTOR.** A rotating part of the ignition system which takes the high tension lead from the coil and sends the current to each plug.

**DRY SUMP LUBRICATION.** A motor taking the oil from a separate tank and pumping it through its course with a separate pump to draw it back into the reservoir which is not in the sump, hence the oil keeps cooler.

**DYNAMO.** A machine that generates mechanical energy change it to electrical current, i.e., to charge the battery.

**DYNAMOTOR.** A dual purpose machine combining generator and self starter.

- FEELER GAUGE.** A set of metal strips of marked thicknesses used to measure clearances.
- FIELD MAGNETS.** Coils of wire around a soft iron core in an electric motor; when current flows through it an electro-magnet forms.
- FLOATING AXLE.** One that transmits power but does not bear any weight.
- FLUID FLYWHEEL.** A fluid coupling as an hydraulic clutch whereby the engine has no mechanical connection with the gear box power being transmitted from a driven finned disc with an oil bath to another finned driving member by the force of a current of oil.
- FORCE FEED LUBRICATION.** A geared pump forces oil along channels in the crankshaft through orifices in the main bearings.
- FOUR CYCLE ENGINE.** Four strokes are completed in two revolutions:— Induction, Compression, Explosion and Exhaust, as against one revolution in the two stroke engine.
- FUSE.** A glass-enclosed wire which melts when subjected to a damaging current which may otherwise blow filaments. Never replace a broken fuse without remedying the cause.
- GASKET.** A packing either of a tough card composition or of asbestos between copper sheets. Often referred to as a washer.
- GEAR RATIO.** The number of revolutions made by the engine relative to turns of the wheel. Also expressed as the ratio of the number of teeth in the crown wheel to the number in the driving pinion.
- GLAND.** A screwed cap or flange fitted on the end of a shaft to prevent leakage.
- GRAPHITE.** A form of blacklead or carbon used as a lubricant as dust will not clog it. Also added to oils as an added improvement for gears.
- GRUB SCREW.** Composed entirely of a thread without a head.
- GUDGEON PIN.** The short pin or bar by which the piston is hinged to the con rod.
- GUSSET.** A corner plate fitted across the corner of a framework as a brace.
- HELICAL GEAR.** Cut with screw teeth or curved for smoother running.
- HORSE POWER.** Unit defined as power required to raise 1 lb. 1 ft. in 1 minute. About .7 of a normal horse's pull.
- HOUSING.** A hollow case for carrying bearings, etc.
- HOT SPOT.** Portion of the inlet manifold heated by the exhaust to help vapourisation.
- HUB.** Central boss of the wheel or that portion about which the wheel revolves.
- HYDROMETER.** Measures the specific gravity of the electrolyte in the battery. Readings showing 1.100 to 1.300 are recorded as the density. Fully charged is between 1.285 to 1.300; if half charged 1.225; if discharged 1.150.
- HYPOID GEAR.** A form of bevel gearing with "out of line" meshing.
- IMPELLER.** Part of a rotary pump.
- IMPULSE.** A force or energy lasting only momentarily.
- INDUCTION.** Intake or sucking-in stroke; an electrical induction takes place when an impulse is produced in a wire as a result of disturbances acting nearby.
- INT.** Abbreviation found on older model terminals meaning interrupter connection or contact breaker.
- INTERMEDIATE GEARS.** Those between low and high, e.g., 2nd or 3rd.
- INDEPENDENT WHEEL SPRINGING.** Axles are not used in this suspension.
- JET.** An inner tube in the carburetter through which the petrol is sucked.
- JOURNAL.** Part of a shaft which rotates in or is supported by a bearing.
- JUNCTION BOX.** An arrangement allowing one set of cables to be joined to others.
- KEY.** A wedge or half-round plate preventing movement between a shaft and some component on it, fitting in a groove called a keyway.
- KEY DRIFT.** Square ended steel punch for shifting the key in its keyway.
- KING PINS.** The pivot rod which allows the front wheels to swivel.
- KNOCKING.** Due to the firing of the mixture too early, wrong timing, excessive carbon causing pre-ignition. Also a thumping sound caused by loose bearings, etc.
- LAYSHAFT.** Bottom shaft in the gear box, the countershaft, whose pinions give low and reverse gears.
- LINER.** A cylinder that fits a hole to make a new wearing surface.
- LITRE.** Capacity per thousand cubic centimetres. 1 litre = 1 1/4 pints.
- LIVE AXLE.** A driving axle which rotates within a stationary casing.
- MAGNETO.** A dynamo with permanent magnets with an armature that revolves in them to create a high tension spark.
- MAIN BEARINGS.** Those fixed to the crankcase bearing the crankshaft.
- MAINSHAFT.** In the gear box, one that carries the power direct and splined to carry the sliding pinions to engage gears on the lower lay shaft.
- MAKE AND BREAK.** Contact breaker.
- MANIFOLD.** Pipes or passages for carrying gases, etc.
- MISFIRE.** A fault shown when gases fail to ignite at the right time.
- MONKEY WRENCH.** Adjustable spanner.
- NEEDLE VALVE.** The fine rod in the carburetter usually operating with the rise and fall of the float thus regulating the flow of petrol into the float chamber.
- NIPPLE.** Part that is conical with a passage, as for taking grease, pipe unions, etc.
- OCTANE NUMBER.** A means of assessing the anti-knock rating of petrol being the percentage of the octane constituent.
- OHM.** Unit of electrical resistance that a current meets in flowing through a conductor.
- OIL RETAINERS.** Such types as felt retainer rings, oil thrower glands, oil return threads, and special leather spring-bound help to keep the oil from seeping past its course.
- OVERLAP.** In timing refers to when the inlet valve opens before the exhaust valve has closed.
- PHOSPHOR BRONZE.** An alloy of copper with tin, phosphorous, etc., with good wearing qualities.
- PINION.** The smallest in a train of gears.
- PINKING.** A tapping sound produced when the engine is accelerating or pulling; the detonation often occurs when the ignition is too far advanced.
- PISTON SLAP.** Metallic slapping noise caused when the bore and piston rings allow excessive clearance on ill-fitting pistons.
- PITCH.** Distance from the centre of a thread on a screw to the centre of the adjacent thread. Also a coal tar used for repairing batteries.
- PLANETARY GEARS.** Such as was in the T Ford and Wilson pre-selector composed of pinion wheels on a shaft revolving around a larger gear wheel, as planets around the sun. As epicyclic gears.
- PITTING.** Wearing away of a surface due to corrosion as on valve faces, contact points.
- PRE IGNITION.** When the charge fires too early it tends to stop the engine or reverse it. Could be caused by faulty timing, by over-heating.
- PRE SELECTOR GEAR.** A small hand lever enables the driver to select it ready to engage it automatically when the clutch pedal is depressed.
- PRIMARY WINDING.** The core of a coil or magneto has two windings; the primary has the heavier wire.
- REGULATOR UNIT.** A control of the output of the generator.
- RELAY.** Electrical device now called the Cut Out.
- RESISTANCE COIL.** Introduced into a circuit to control the current also called shunts. Used in an ammeter, etc.
- RETARDED IGNITION.** Timing set so that the plug sparks after the piston has reached the top of its stroke and has begun to move down.
- R.P.M.** Revolutions per minute.
- SAFETY GAP.** In a magneto a gap in the circuit of 5 millimetres in order to safeguard the windings.
- SCAVAGING.** Term describing the clearing out of the cylinder after combustion by piston pump.
- SEIZING.** When two surfaces bind (often due to lack of lubrication).
- SERVO ACTION.** A brake control which uses the energy of the moving car to apply the pressure.
- SHANK.** The unthreaded portion of a screw or drill.
- SHACKLE.** The swivel joint used at the end of a leaf spring.
- SHIM.** A thin piece of metal inserted to take up wear or to adjust the pressure as of bearings.
- SHIMMY.** The vibration caused by wheel wobble at high speeds.
- SHORT.** An accidental break in a circuit causing the current to run to earth before reaching its destination. This often causes the fuses to blow, and before a new one is replaced the reason for the short should be remedied.
- SOLENOID.** Electrical arrangement of a plunger which can move in a coil, attracted or repulsed by the coil according to the direction in which the current is flowing.
- SPECIFIC GRAVITY.** Relative weight of a liquid to water, which is standardised as 1.000. Lighter fluids as petrol have a specific gravity from .700.
- SUPERCHARGER.** Mechanical means of feeding the cylinders with a greater pressure of vapour.
- S.W.G.** Abbreviation for British standard wire gauge.



**TACHOMETER.** Revolution counter.

**TAPPET.** Short steel rod which almost touches the valve stems before lifting them when the camshaft rotates. Its clearance is to absorb heat expansion.

**THERMO SIPHON.** Circulation caused by hot water rising automatically.

**THERMOSTAT.** A device for regulating the flow of water as through a valve operated under heat.

**THIRD BRUSH.** Governs the current output of a generator.

**THREE QUARTER FLOATING AXLE.** One in which the weight of the car is partly supported by the axle shafts and partly by axle casing.

**THROTTLE.** The valve controlling the entry of the gaseous mixture to the cylinder.

**THRUST.** A force exerted along the length of a shaft. Thrust bearings take the end pressure in a rotating shaft.

**TIE ROD.** Assists in keeping the wheels aligned especially for toe-in.

**TIMING.** Two actions are required, i.e., the **IGNITION TIMING** sets the charge exploding according to the position of the piston; **VALVE TIMING** sets the opening and closing of the poppet valves in relation to the piston.

**TIMER.** Often refers to the ignition commutator contact breaker.

**TOE-IN.** Inclination of the front wheels; at the front, to obviate splay out at speeds.

**TOGGLE.** Tapered steel bar. Toggle joint on brakes equalises the pressure.

**TOLERANCE.** Permissible variance from the exact size usually in thousandths of an inch.

**TON MILES.** In fuel technology, the weight of the vehicle multiplied by its consumption in m.p.g.

**T.D.C.** Top dead centre is when the piston is at the top of its stroke.

**TORQUE.** Turning effort of a shaft, in measure a twist or leverage effect. Torque tube contains the propeller shaft.

**T.P.I.** Threads per inch in screws.

**TRANSMISSION.** Those parts used in the transfer of power from the engine to the wheels, as the gears, propeller shaft.

**TREMBLER.** Spring which operates the contact breaker.

**TRUNNION.** Bearing or journal which oscillates or swings.

**TWO STROKE.** In this cycle of operation the charge is fired once in every revolution of the crankshaft. The engine eliminates valves and timing gears which are replaced by two open ports. Only the DKW and Jowett cars use this type.

**UNIVERSAL JOINT.** Absorbs the springing movement of the front of car with the rear. Needle gyroscopic and ball types are usually employed, as on the propeller shaft.

**VACUUM TANK.** A superceded form of petrol suction, called an autovac by the English makers.

**VALVE.** A device that regulates the flow and these are of many kinds such as the poppet valves that let the mixture in and out of the cylinders. Other valves are used in the tyre tubes, to control the oil flow, in carburetters, etc.

**VALVE FACE.** The seating of the mushroom valve that comes in contact with the seating of the cylinder block. These must be kept air-tight and frequently ground and springs replaced at about 40,000 miles.

**VAPORISER.** Usually of a mesh form used in the manifold to assist vaporisation of the fuel mixture.

**VENTURI TUBE.** In carburetters, a tapered tube in which is a needle valve.

**VOLT.** Unit of electric force, i.e., the pressure. When applied to a circuit or conductor having a resistance of 1 ohm, gives a current of 1 amp.

**VULCANISER.** A means of repairing rubber tubes by heat and pressure.

**WATT.** Unit of electrical power or energy, usually obtained by multiplying the current by the pressure, i.e., volts by the amps. 746 watts equal 1 horsepower. 1,000 watts equal 1 kilowatt. A watt-hour equals the work performed by a current of 1 amp flowing for an hour between two points in a circuit having a potential difference of 1 volt.

## A picture for your scrapbook



This month's color picture shows the Humber Vogue Saloon which is a new addition to the famous Humber range. The vehicle is powered by a four cylinder engine developing 62 bhp at 4400 rpm. Disc brakes are fitted to the front wheels and the car has heating, demisting and wind-screen washing equipment as standard fittings. The car was first released in Australia in January, 1963, and is produced in the factory of Rootes (Australia) Ltd., Port Melbourne.



\*A\*R\*O\*U\*N\*D\* \*T\*H\*E\* \*O\*U\*T\*I\*N\*G\*S\*



JULIE HORNE +SERIES II VOGUE (BEN HUR)



WARWICK SLADES SERIES(IIII)SNIPE



KARL WILDE+RESTORED VOGUE II



SHARON RUSSELLS MKII PLUS ADMIRERS

# WHAT'S YOUR SPEED?

NSW motorists are getting their say on how fast or slow they want to go. A new survey conducted by the NRMA is giving average Joe a chance to say what's fair cop on today's highways.

Because the survey is in the latest issue of the NRMA magazine, The Open Road, it will be distributed to 1.8 million motorists. Thirty questions will cover seven general areas one of which is speed zoning.

The survey will be anonymous and asks drivers at what speed do they actually drive and what they think about the current speed limits.

If you're not in NSW or not in the NRMA but you want a copy of the questionnaire phone the NRMA's Traffic engineering section to get your copy on (02) 260 9632.

The four **WINNERS** of the Shell Mileage Marathon chalked up some astronomical figures for the event. Class A for open single seaters was won by Moss Angliss who managed 2620.47 mpg (927.66 km/l). Class B for commuters was won by Three Diamonds, a private entry, at 643.80 mpg (227.91 km/l). Class C for schools' singles seaters was won by Swan Hill Technical School No.2 with 1548 mpg (548.23 km/l). Class D was won by The King's School (NSW) with 616.97 mpg (218.41 km/l).

## CHAIN VERSUS BELT

Why do the majority of modern cars today have engines which are belt driven, instead of chain driven like they used to be?

I have a Fiat Regata which is belt driven and the belt has to be replaced every 60,000 kilometres to avoid it breaking.

Lets face it, it's very unlikely that a chain will snap, but I know plenty of people including myself who have snapped belts — particularly on overhead cam engines. A lot of the time the engine is destroyed.

Why not stick with the chain, which requires virtually no maintenance and won't cost you \$300 plus to replace every 60,000 kilometres.

*Car companies have mostly switched to belts to reduce engine noise.*

The NRMA called for immediate establishment of a national vehicle register to replace the individual Registers of Encumbered Vehicles currently operating in each state. "The establishment of a national parts labelling system, by which major components of cars are given a unique, tamper-proof identification number would help to decrease Australia's huge car theft problem, which cost Australia an estimated \$290 million in 1990," said NRMA's General Manager Richard Cox.

## Women not in control of cars

By **MICHAEL LYNCH**

Women in the 1990s may be making their mark in the professions, business and commerce, but motoring and car-related matters, it seems, remain a traditionally male domain.

A marketing survey carried out by one of the country's largest after-market car retail chains, Pedders Suspension, has revealed what the company says is a worrying imbalance between the sexes when it comes to recognising faults in cars.

Pedders — a Victorian-based franchising chain specialising in suspension and shock absorber repair outlets

— surveyed more than 3,000 customers at its 44 facilities in each State and Territory this year.

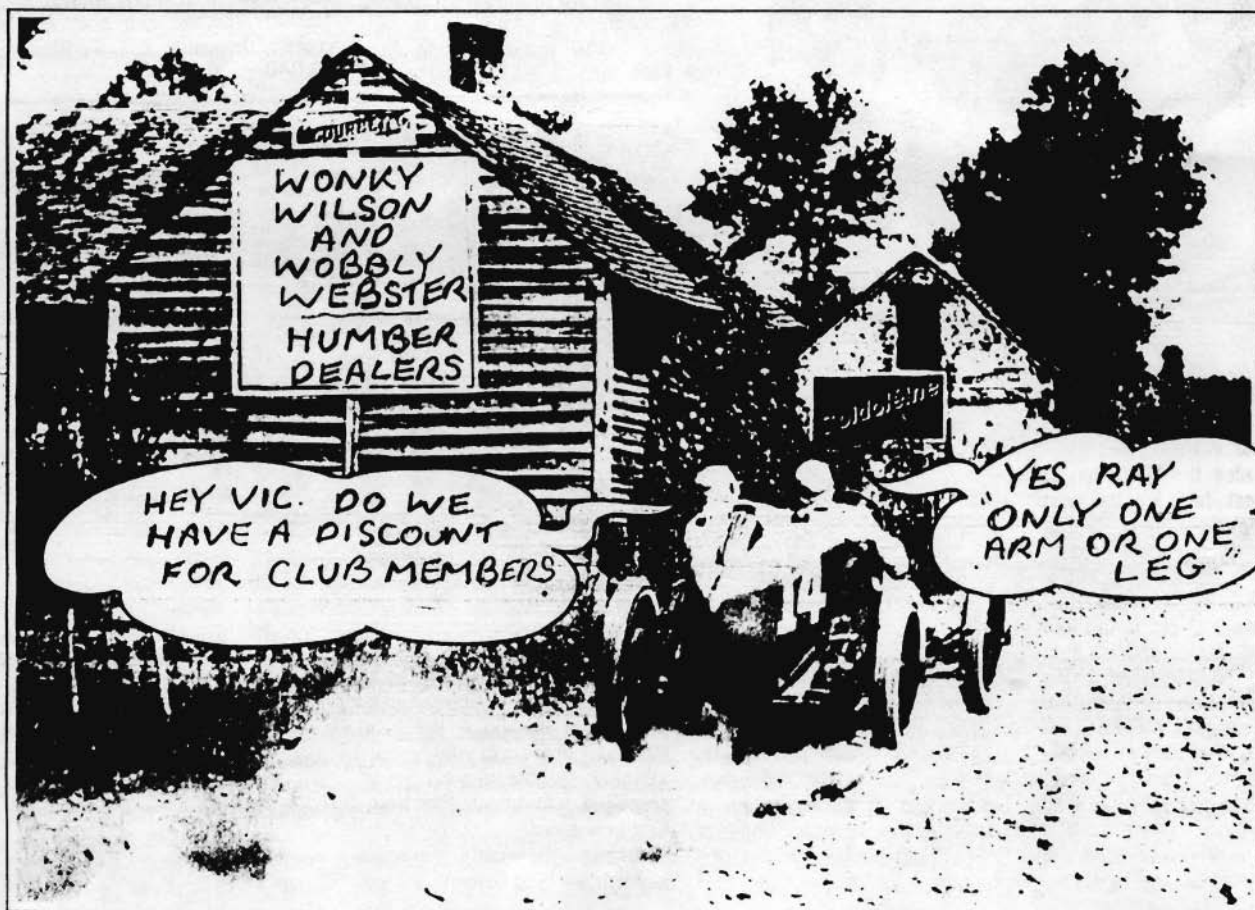
Although the rate of women's car ownership had risen by 35 per cent in the past decade, Pedders found that less than 10 per cent of its customers were women, and that nine out of 10 women who "shopped" with the company expressed no interest in learning more about their cars.

"Add to this the fact that Australian motorists now hang on to their vehicles on average four years longer, there is a concern about the condition of cars maintained by women and the ability of the female motorist to cope

with minor problems and breakdowns," said Mr Ron Pedder, the company's managing director.

The company conducted its survey in a bid to gauge consumer reaction to what it described as "growing publicity about the new awareness the '90s woman has about motoring and other traditional male domains".

Mr Pedder said his organisation made a big marketing push towards women motorists late last year, offering a \$28 14-point safety and suspension check and advertising the campaign with an "adver-torial" push in the one million copies a week national woman's magazine *New Idea*.





## Headlights are about to get smaller but brighter.

**T**he quartz halogen globe revolutionised automobile lighting, but now the next big leap in night driving is nearly with us — the DI gas discharge lamp.

Among the advantages of DI lamps are twice the amount of light, for the same wattage, as halogen lamps and a much larger spread of light.

Their small size also allows more freedom in headlight and vehicle front-end design, and the new system promises reduced maintenance and lower warranty costs because of reduced failure rates.

The new lamp is a product of the European VEDILIS — Vehicle Discharge Light System — program set-up by industry, institutions and governments to improve vehicle safety and its impact on the environment.

Gas discharge lamps produce light when a high-intensity arc is ignited and maintained between two tungsten electrodes. The small discharge chamber — 30 millimetres — contains xenon gas at high pressure, liquid mercury and solid metal halides.

After ignition of a discharge in the xenon gas, the chamber is heated rapidly by overheating the lamp for a few seconds. Mercury and halides quickly evaporate, and the light output increases considerably.

Full illumination is not available for two seconds, and an electronic control unit is required to regulate the high voltage loads — 12,000 volts for a few milliseconds — needed to ignite the lamp and ensure correct steady-state operation.

Ironically, the DI lamp's biggest plus, its increased spread of light, has also caused scientists developing the system some unexpected problems. The higher beam intensities actually produced 'too much' light.

Increased side illumination, direct glare and reflection from wet roads was a serious problem during field tests, and drivers were also distracted by the extra visual information.

Finding the optimum spread of light is crucial, but the DI is compatible with both ellipsoidal and free-shape reflectors and a self-levelling system is also likely to ensure accurate cut-off of beam angles.

The unexpected problems with the DI lamp has led to research on how drivers respond to the night driving process.

"Up till now no-one recognised that driving is made up of four components: man, driving, car and the street," Professor Schmidt-Clausen, Dean of the Faculty of Electric Energy Technology at the Technical University of Darmstadt, near Frankfurt in Germany, and also a consultant to Hella, said.

"We are experimenting with how people drive. The deeper the investigation, the less we know.

"People are designed for the daytime, so in some respects the gas discharge lamp is ahead of most driver's skills."

Another area of concern for the teams developing the lamp is street signs.

Conventional halogen lamps produce a lot of light in the red zone of the light spectrum, but the DI emits a lot of blue little and little red. This makes red warning signs appear darker — brownish — with the new system, and long-term studies are underway in Europe to develop more compatible road signs.

The first stage of controlled field tests with the DI lamps has been completed, and they are available to special order on German-specification BMW 750 and 850 models. The next all-new 7-Series, due in 1993, is expected to be the first production car with DI lamps as standard equipment.

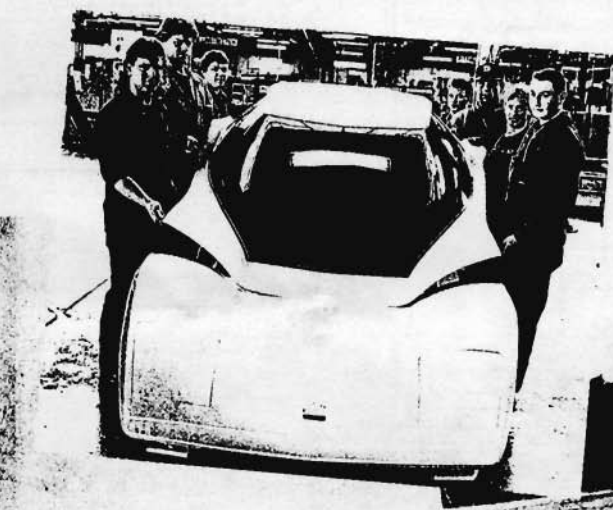
Meantime, Professor Schmidt-Clausen is already developing a new fibre optic system for vehicle lighting, which uses a single light source for all lamps.

Rover has offered employees jobs for life if they agree to adopt Japanese-style working practices.

Last year Rover made a loss of over \$100 million in the first six months. Rover's 35,000 workers produced 6.5 cars per person during that period, while during the same six months Nissan's 2,900 workers made 21.7 cars each.

The 1700 employees now being recruited to work at Toyota's Burnaston plant are expected to build 29.4 cars per employee during the first six months.

If the package is accepted by the unions, Rover is likely to shed around 15,000 workers over the next nine years, reducing its workforce to 20,000.



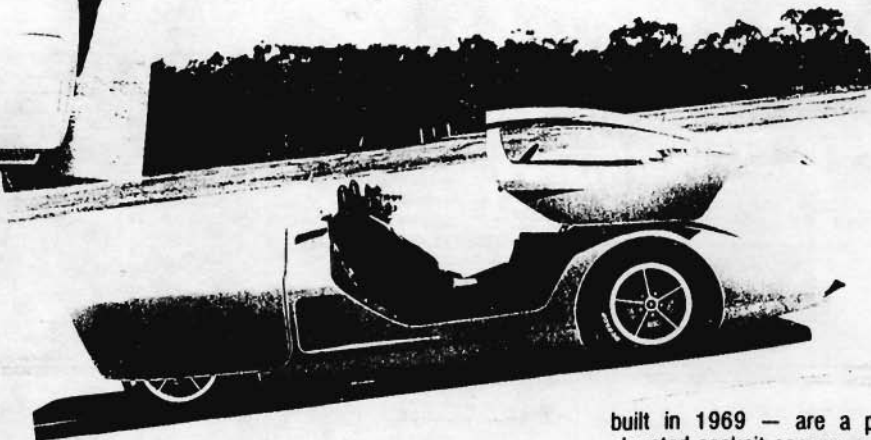
**H**olden came close — but not quite close enough — to building Australia's first supercar in the 1960s.

It was called the Hurricane, it was the test bed for the first Aussie-made V8 engine, and it came close to full-scale production after its public debut in 1969.

But, just like the Torana GTR-X, the Hurricane was put in the too-hard file and slipped under a dust cover at Fishermans Bend during the 1970s to rot and be forgotten.

But the Hurricane has been re-born, thanks to a team of apprentices at Holden's Training Centre, and it will soon go on display in all its former glory. Apart from a change in body colour from the original metallic orange to silver.

The nine apprentices were actually 'out of trade' people who lost their jobs in the recession, but worked on the Hurricane to complete their training under a Government-funded assistance program.



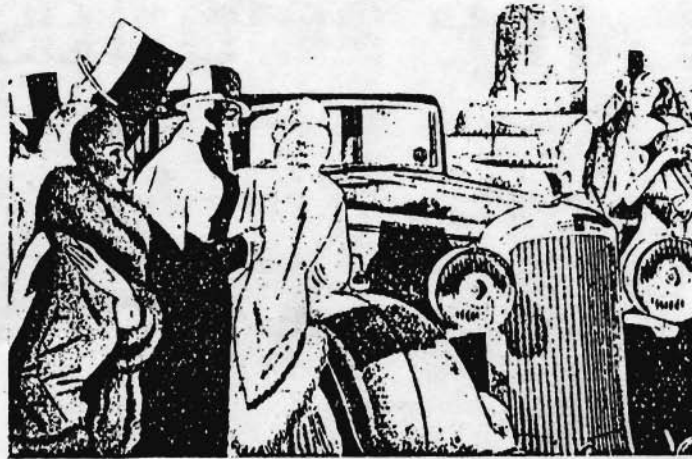
The car will eventually be on display at the National Holden Museum at Bendigo, where its advanced fibreglass body and futuristic specification can be appreciated generations after it was first conceived.

Among the car's technical highlights — and remember it was

built in 1969 — are a power-elevated cockpit canopy, a route-indicator system, closed-circuit rear-vision TV, digital dashboard, oil-cooled disc brakes and automatic air conditioning.

Once work on the Hurricane is complete, Holden's is hopeful that a fresh group of out-of-trade apprentices will be employed on a similar program to resurrect the Torana GTR-X.

MP-J



# HUMBER . . .

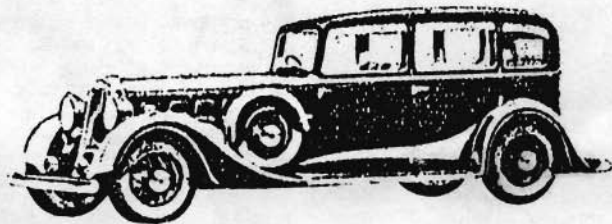
*the Chosen Car of Royalty*

**T**HE Humber has been chosen for the use of His Royal Highness, Prince Henry, during his visit to Australia. No more fitting tribute could be paid to the reliability and outstanding comfort of this British

thoroughbred. Eminent soundness of design, classic body lines, vivid performance and unswerving reliability have established Humber on the highways of the world.

*Strikingly Beautiful in Appearance*  
*Highly Efficient in Performance*

True to tradition the progress of this fine car is steady, its standard of workmanship even more exacting, its leadership unquestioned. Evers Motors Pty. Ltd. will be pleased to send full particulars on request.



## Evers Motors Pty. Ltd.

457 Adelaide Street :: Brisbane

### OVERHEATING

ROBERT A. K. BOAN Manse, 3333 Nepean Highway, Sorrento.

It is courting trouble to run an overheated engine for long as undue expansion may cause the rings to close the gap and snap and score the cylinder. If the cause cannot be remedied on the spot the motor should be stopped every five minutes or so to cool down. Most often the cause will be found to be insufficient water, but don't ever pour cold water into a hot engine that is not running to automatically mix it. The block may crack. A blockage in the fine radiator cores is a common complaint. Other causes for overheating may be attributed to water pump failure, too rich or too weak a mixture, caused by the wrong float level, binding brakes, tight piston rings, especially if binding because of carbon in the grooves. Tight bearings and insufficient lubrication are two more reasons for overheating. Retarded ignition also causes it.

# Lead batteries keep passing the acid test

**D**ESPITE frequent reports of its demise, mostly from frost-bound motorists, the lead-acid battery lives on. David Rand predicts that it will still be going strong next century, leaving high-tech pretenders in its wake.

Dr Rand should know. He is probably the world's leading authority on lead-acid batteries, and most of the world's leading battery manufacturers have consulted his research group at the CSIRO division of mineral chemistry in Port Melbourne.

When Britain's Royal Chemical Society awarded him its coveted Faraday Medal this month, it was not just acknowledging his contributions to electrochemistry: it was affirming the durability and versatility of the maligned device that lurks beneath the bonnet of every modern motor vehicle.

Dr Rand, who is also a historian of the lead-acid battery, says the battery was first commercialised as a back-up to new-fangled electrical networks in the 1880s. Sales slumped as the power supply became more reliable, but the battery was reborn when cranky early 20th Century motorists insisted that somebody invent the starter-motor.

The lead-acid battery acquired new impetus when thousands of American soldiers returned home after World War I, besotted with the primitive radios that they had used to communicate in the field, and built their own battery-powered radios.

That market rapidly evaporated when somebody invented a radio valve that could handle alternating current from the mains, but by then the mass-spawning of the automobile had ensured the battery's future.

In basic form, today's lead-acid battery is unchanged. It has gone up in voltage and will soon do so again, has shrunk dramatically to fit into cramped engine bays, and is in the process of acquiring electronic intelligence through electronic chips that will tell the battery when to recharge itself and how to respond to the increasing demands on its reserves.

Some modern cars, Dr Rand points out, may have up to 80 servo motors, some variously used to allow drivers to orient themselves in 10-dimensional hyperspace, even powering rear-view side mirrors so the driver need no longer expose any part of his person to an atmosphere rendered unbreathable by millions of car exhausts.

Those car exhausts are ultimately the key to the lead-acid battery's fourth reincarnation. One Martin Braude, a lone, green-hued councillor in Los Angeles, has engineered a miracle that not even a conspiracy of Arab oil-producing nations was able to bring about in 1973.

Mr Braude persuaded the council to pass a law that two per cent of the cars in Los Angeles must be zero-emission vehicles (ZEVs) by 1995. By the decade's end, five per cent of vehicles must be ZEVs, rising to 10 per cent by 2003.

Sensing the chill winds of change that in time will blow around the globe to clear Melbourne's smoggy skies, the Big Three car makers formed the US Advanced Battery Consortium. The US Department of Energy has provided a \$300 million funding incentive.

The short-term target is a battery with a capacity of 80 watt-hours per kilogram, which will recharge in less than six hours, and with a lifetime of five years under repeated cycles of charging and full discharge.

David Rand predicts confidently that no battery, either lead-acid or any of the exotic newcomers, will be able to make these specifications on time; the specifications beyond 1995 are even more improbable.

He says it may be possible to wring 60 watt-hours out of a lead-acid battery, but promising batteries using other materials are unlikely contenders for reasons other than their capacity.

The contents of the promising sodium-sulphur battery, for example, is not the sort of thing that one would want anywhere near living people, should two electric cars intersect at Swanston and Flinders streets. Molten sodium and molten sulphur, at a temperature of 350 degrees, would react violently with the water in human tissues, searing their way to the bone.

Of course, there is the option of fuel cells, which are essentially non-rechargeable batteries with consumable electrodes and electrolytes that can be resupplied when they run out.

**H**YDROGEN-OXYGEN fuel cells are tricky because hydrogen tends to leak through almost any material, and is big bang material if ignited by a stray spark. So-called air-aluminium fuel cells, which have a very high energy density, would require an elaborate retailing infrastructure and pose challenges in designing a slip-in, slip-out cassette of consumable aluminium electrodes. Refining aluminium also consumes huge amounts of energy, and produces carbon dioxide. One pollution problem would be exchanged for another.

Which leaves lead-acid batteries. Dr Rand says the traditional lead-acid battery in cars is superb in its main role of delivering a short, solid jolt of energy to turn over a car engine. It has a long time to recover.

It is not particularly suited to the repeated deep-discharge and recharge cycles required for an electric vehicle. In the way it responds to demand, the lead acid battery is just like the petrol in a car's tank, but even more so. Stroked by a thoughtful driver, a lead-acid battery will propel an electric vehicle for a full day's round of commuting, but will very quickly repay any lead-footed driver by leaving him powerless beside the freeway.

Nobody has yet devised a fuel gauge for a battery. The remaining charge is difficult to measure in a way that would mean anything to a driver trying to calculate how far and how slowly he must drive to make it home before the battery expires.

Dr Rand believes that hybrid battery systems could be used: lead-acid for acceleration and heavy climbing, and fuel cells for sustained, low-energy cruising on the flat.

The big problem with batteries, he says, is the recharge time, relative to the time it takes to refuel a car with petrol. A comparison illuminates the overwhelming advantages of liquid fuel and the internal combustion engine.

In a lead-acid battery, one litre of electrode and electrolyte weighs 2.5 kilograms, and fully charged can yield seven watt hours of power — enough to propel the family car a few metres at most.

**O**NE litre of petrol weighs 0.85 kilograms, but contains 11 kilowatt hours of power, about 1500 times more — enough to propel the same car over 10 kilometres. And the petrol takes up 40 times less space and is 100 times lighter for the same energy density.

Dr Rand says a standard petrol pump delivers liquid energy at the rate of 500 kilowatt-hours per minute. A standard electrical power socket would recharge an electric vehicle at a mere five watt-hours per minute, or 10,000 times slower.

The increasing demands on the old faithful lead-acid battery will soon see cars shift from 12-volt to 36-volt electrical systems, Dr Rand predicts. This will allow circuits to carry smaller currents, and they will generate less heat.

Some of Australia's most innovative battery companies have gone offshore, because lead-acid batteries have become a mass-produced, low-profit item, whose export potential is severely limited by the high transport costs associated with the weight of the lead inside it.

Dr Rand believes, however, that there are emerging markets in the alternative energy field in developing and developed nations, where lead-acid batteries would be used to store surplus power generated by wind and solar-power units, and released at night or on cloudy, windless days.

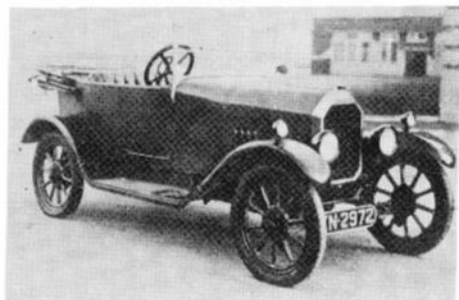
Far from being dead, compact, rechargeable lead-acid batteries are now beginning to supplant nickel-cadmium batteries in laptop computers, compact-disc players and other portable electronic devices. Consumers are learning to their costs that NiCads do not last forever; they have a bizarre habit of remembering their charge/discharge cycle, and if recharged too frequently their charge-holding capacity declines dramatically.

Dr Rand says Australia supplies a quarter of the world's lead, and more than 60 per cent of that figure is used in producing lead-acid batteries. These are good reasons for maintaining strong research support — such as Australia's lead producers already give — and developing new variants of the lead-acid battery for lucrative niche markets.



# AUTOMOTIVE SURPLUS PTY. LTD.

Incorporating Vanguard Co.  
(formerly of Elizabeth Street, Melbourne)



## New Old Stock Parts for Most Makes



MECHANICAL, ELECTRICAL, BODY RUBBERS, BAILEY CHANNEL, ACCESSORIES, ETC.  
— HILLMAN, HUMBER, SUNBEAM, COMMER —  
GM-H, FORD (S.V. and O.H.V.), CHRYSLER  
AUSTIN, MORRIS, WOLSELEY, RILEY, MG  
STANDARD, TRIUMPH, JAGUAR, DAIMLER

*Veteran — Vintage — Classic — Modern*

- *Large stock of loose rings and pistons*
- *Gaskets made to order*
- *Surplus stock bought*

**“One Call Does It All”**

Phone (03) 873 3566 • 34 Thornton Crescent, Mitcham, Victoria 3132 • Fax (03) 874 1485  
Mail Orders Welcome • Monday to Friday: 8.30 a.m. to 5.30 p.m. • Saturday: 8.30 a.m. to 12.00 noon

## THE CLASSIC OIL

“Penrite Oil Co. P/L can supply a full range of the correct lubricants required for all veteran, vintage and classic machines. Products such as SAE 30, 40 and 50 engine oils, non additive gear oils of SAE 90:140 and 250 (600w), steering box lubricant, water pump grease, sleeve valve oil. If you need advice on which is the right grade oil Penrite Oil to use then contact us and give details of your car and we will provide a recommendation to you.”

For further information contact your local dealer

### PENRITE OIL COMPANY PTY LTD

3 Cross Street, East Brunswick, Victoria 3056. Phone (03) 387 2633  
13 Cressall Road, Balcatta, Western Australia 6021. Phone (09) 344 5052  
18 Lochlarny Street, Beenleigh, Queensland 4207. Phone (07) 807 2977  
2/2 Elizabeth Street, Wetherill Park, New South Wales 2164. Phone (02) 725 1037  
107 King William Street, Kent Town, South Australia 5067. Phone (08) 363 1688



## PHAST

PENINSULA HOME AUTO SERVICE & TUNE

☎ **789 6952**

HUMBER SPECIALIST

D. & D. Judd P.O. Box 35 Frankston 3199

STELLA & ARNOLD GOLDMAN

*Mr. Suddaby's Bookshop*

OLD — NEW — USED BOOKS BOUGHT & SOLD  
OVER 6000 TITLES IN STOCK

29a MAIN STREET,  
MORNINGTON, 3931

TEL: (059) 75 9233



# Classic Car Insurance that's affordable.

The way prices are these days, you would feel it if something happened to your classic car. The cost of a quality laid-up or full comprehensive policy with Shannons can be so low that risking no insurance just doesn't add up.

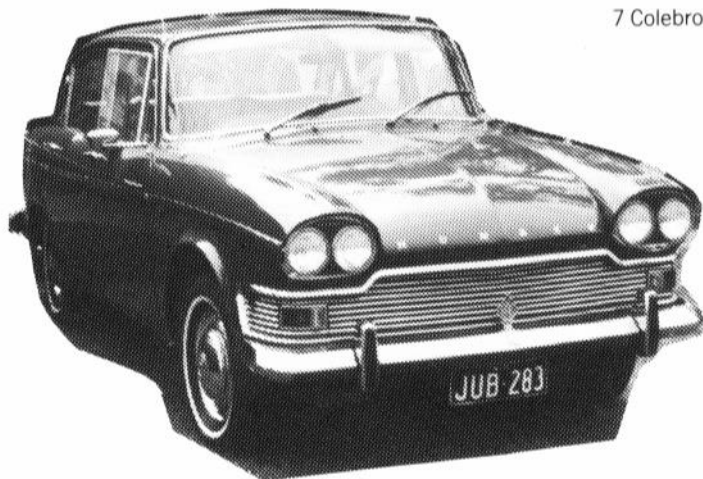
## Full Comprehensive Sample Premiums

|                             | AGREED<br>VALUE* | PREMIUM<br>FROM** |
|-----------------------------|------------------|-------------------|
| 1924 Chevrolet light truck  | \$8,000          | \$75              |
| 1946 Austin 8 Saloon        | \$5,000          | \$90              |
| 1913 Ford Model T           | \$19,000         | \$90              |
| 1958 Customline Star Model  | \$15,500         | \$145             |
| 1955 Bentley R Type         | \$32,000         | \$225             |
| 1932 Ford Street Rod        | \$35,000         | \$490             |
| 1970 Mercedes Benz 280SL    | \$55,000         | \$650             |
| 1977 Jaguar XJC V12 Coupe   | \$27,000         | \$755             |
| 1960 Aston Martin DB4       | \$165,000        | \$865             |
| 1971 Falcon GT HO Phase III | \$45,000         | \$975             |
| 1986 Group A Commodore      | \$27,000         | \$1190            |

Underwritten by GRE Insurance.

\*Agreed value dependent on condition and inspection if required.

\*\*No restrictions on use, a further reduction of up to 25% applies for limited use.  
Premiums vary from state to state.



Pre-1940  
vehicles  
**FROM**  
**\$75**

## Features:

- You keep the salvage up to 1970 (modifieds up to 1960) • choice of repairer
- agreed value • one windscreen or window glass replacement per year excess free
- personal effects cover • Category V vehicles excess free • \$5,000,000 legal liability • prompt claims settlement
- Australia wide service centres.

For quality and value, call Shannons for a free quote now.



*Keeping vehicles on Australian roads.*

321 Warrigal Rd, Cheltenham, Vic., 3192

Fax: (03) 583 9475 Ph: (03) 584 7266

48 Sailors Bay Rd, Northbridge, N.S.W., 2063

Fax: (02) 958 7841 Ph: (02) 958 7666

182 Brighton Rd, Somerton Park, S.A., 5044

Fax: (08) 294 9995 Ph: (08) 294 9000

Suite 1, 4 Canning Rd, Kalamunda, W.A., 6076

Fax: (09) 257 1289 Ph: (09) 257 1269

7 Colebrook Ave, Moorooka, Qld., 4105

Fax: (07) 892 4319 Ph: (07) 892 2776

Quality Auctions, Park & Sell, General & Life Insurance.