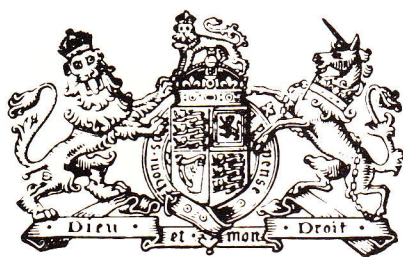


May 1985

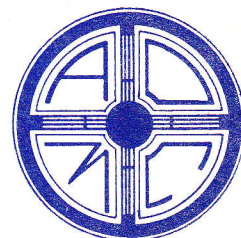
# *The* **HUMBERETTE**



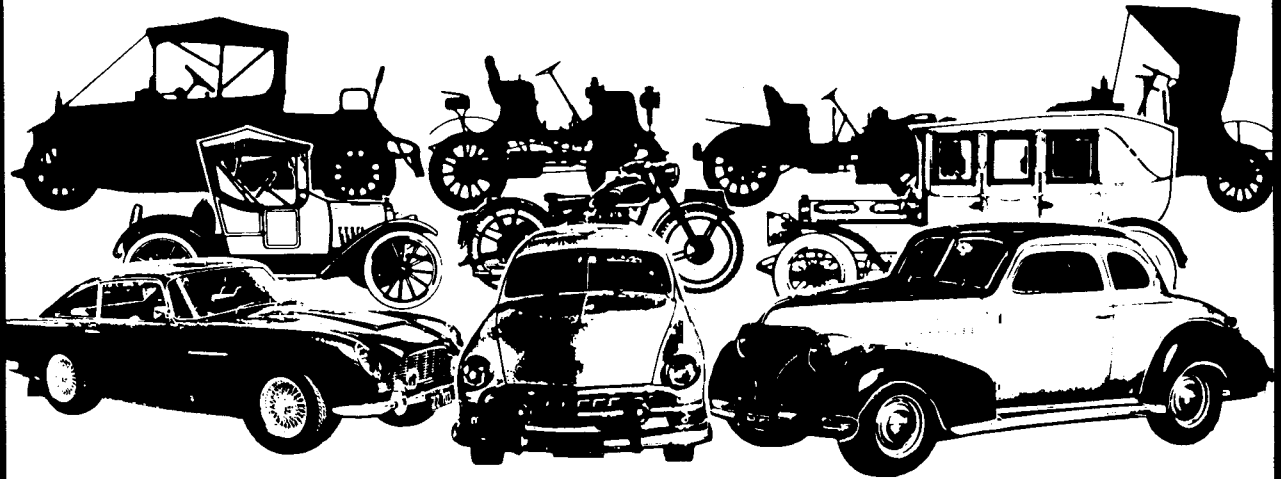
By Appointment to  
The Royal Family

Official Newsletter of the Humber Car Club of Victoria.

Affiliated with the Association of Motoring Clubs



# Sutherland



## Antique Vehicle Insurance

96 Wellington Parade, East Melbourne, Victoria 3002  
(P.O. Box 129)

Telephone: (03) 419 8166

MAY 19TH.

"MELBOURNE OLD AND NEW" : COMBINED CAR CLUBS  
GUIDED TOUR. 10.00 AM TO 4.00 PM.  
"ARRANGED BY THE "JAMES FLOOD - HAROLD PAYNTING  
CHARITY TRUST".

MAY 24TH.

GENERAL MEETING. 8.00PM.  
(SPEAKER: MR. BOB THWAITES, EX. ROOTES DEALER.)

MAY 31/ JUNE 1ST.

VINTAGE DRIVER'S CLUB SWAP MEET.  
MELBOURNE SHOW GROUNDS.)

JUNE 8TH-10TH.

QUEEN'S BIRTHDAY WEEKEND. WANGARATTA.  
SEE LAST NEWSLETTER FOR FULL ITINERY.

JUNE. -

POSSIBLE TECHNICAL DAY. TO BE ADVISED.

JUNE 28TH.

GENERAL MEETING. 8.00 PM.  
(SPEAKER : HISTORICAL TRAMWAY'S ASSOCIATION.)

JULY 14TH.

BARBEQUE AND SOCIAL AFTERNOON. MONASH UNIVERSITY.  
(SPORTING FACILITIES, HEATED INDOOR POOL, TENNIS  
COURT ETC. ).

JULY 26TH.

GENERAL MEETING. 8.00PM.  
( SPEAKER : R.O.S.T.A. )

AUGUST 11TH..

C.H.A.C.A. SWAP MEET. CHIRN SIDE PARK.

AUGUST 18TH.

TALHOF RESTAURANT & SMONGASBORD LUNCH. WARBURTON.  
( COMBINED RUN WITH CHEV. CLUB.)

AUGUST 23RD.

GENERAL MEETING. 8.00 PM.)

SEPTEMBER 27TH.

GENERAL MEETING. 8.00PM.-

OCTOBER. (TBA.)

H.C.C.V. 10TH BIRTHDAY CELEBRATION AND ROOTES  
"G.T." DAY.

OCTOBER 25TH.

GENERAL MEETING. 8.00PM.

NOVEMBER 3RD.

CONCOURS d'ELEGANCE, CAR DISPLAY AND PRIDE OF  
OWNERSHIP.) DREPDENE PARK.

NOVEMBER 16TH/17TH.

BENDIGO SWAP MEET.

NOVEMBER 22ND.

GENERAL MEETING. 8.00PM.

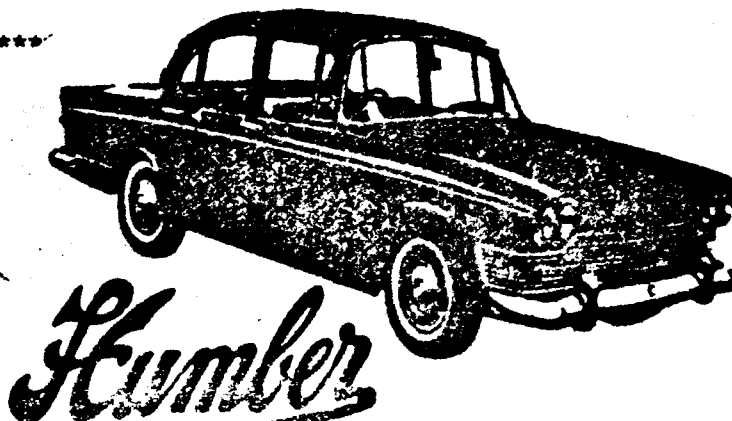
NOVEMBER. (TBA)

ANNUAL PRESENTATION DINNER).

\*\*\*\*\*

This Humber motif  
appears on the  
screen printed  
silk scarves.

Price; \$3.80 ea.



# ROOTES SERVICE BULLETIN

MODEL LIGHT CAR RANGE  
 FITTED WITH 33 PSEI OR ZENITH 30 VN CARBURETTORS

SUBJECT FOREIGN MATTER ENTERING FLOAT CHAMBERS.

VOLUME V

SECTION C

ISSUE 20

Date SEPT, 1965

Where complaints are received of persistent jet blockage due to foreign matter such as insects entering the float chamber through the external vent hole, the following work should be carried out:-

1. Thoroughly clean off the carburettor around the float chamber mounting cover and in the immediate vicinity of the external vent hole.
2. Using a suitable plug, blank off the engine rocker cover side only of the vent hole, taking care to ensure that the plug does not in any way restrict the vertical drilling of the float chamber breather; i.e., the maximum fitted depth of the plug must not exceed 1/8" (3.2 mm). The size of plug required for the respective carburettor units is:-

Solex 33 PSEI - .138" (3.5 mm) diameter, .125" (3.2mm) depth.

Zenith 30 VN - .10" (2.5 mm) diameter, .125" (3.2mm) depth.

## \* CLUB REGALIA FOR SALE: \*\*\*

\* WINDCHEATERS: BLUE:- Sizes 14, 16, 20 (Seconds quality \$10.00 )  
 GREY:- Sizes 14, 12.  
 PRICE:- \$15.00 ea. Postage \$1.00.

\* T- SHIRTS: SHORT SLEEVED WHITE WITH CLUB LOGO ON FRONT.  
 All sizes 10 to 22.  
 PRICE:- \$7.00 ea. Postage \$1.00.

\* SCREEN PRINTED SCARVES: IMPORTED ITALIAN SILK WITH HUMBER EMBLEM. ASSORTED COLOURS.  
 PRICE:- \$3.80 ea. POSTAGE 50 cents.

\* LAPEL BADGES: ENAMEL. PRICE:- \$3.00 ea. postage 50 cents.

\* ENAMEL CAR BADGES:- PRICE: \$10.00 ea. Postage \$1.00.

\* WIND SCREEN STICKERS: VINYL WITH PEEL OFF BACKING.  
 PRICE: \$1.00 ea. S.S.A.E. FOR POSTAGE.

JACKET PATCHES: REPLICA OF CLUB BADGE WITH OVERLOCKED EDGES.  
 PRICE\* \$2.00 ea. S.S.A.E. FOR RETURN POSTAGE.

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# THE HUMBER CAR CLUB of VICTORIA

P.O. BOX 35, FRANKSTON, 3199  
23 HIGH STREET, WATSONIA, 3087

## COMMITTEE 1985/86

PRESIDENT	Bob Kennedy	789 5119
VICE PRESIDENT	Bill Holmes	397 7836
SECRETARY	Margaret Willimott	435 6354
TREASURER	Rob Dunlop	439 7059
EDITOR	Barry Bosnich	460 4505
SOCIAL SECRETARY	Barbara Dunlop	439 7059
MEMBERSHIP REGISTRAR	Nancy Kennedy	789 5119
LIBRARIAN	Keith Willimott	435 6354
TECHNICAL ADVISORS	Tom McAlpine (051)27	4755
	Des Judd	789 6952
PUBLICITY/REGALIA	David Dunlop	439 7059

The Club meets on the Fourth Friday of the month (except December) at 8.00 p.m., in the Deepdene Park Hall, Whitehorse Road, Deepdene.

## HUMBER SUPER SNIPE SERIES V 1965

6 cyl. 2950 cc engine with twin Stromberg carburettors on a cross flow cylinder head. Three speed Borg Warner automatic transmission with a lock-up torque converter for improved fuel economy. For daily use the air cleaner has been replaced with two sports cleaners, and the electrical system has been changed to negative earth. The car has one previous family ownership and is in the original Celtic Blue enamel paintwork. Mileage completed is 125,000 miles, 10,000 of which have been done since August last year. Most of the mechanicals have been overhauled in recent years.

Arnold Goldman  
25th March,



PRESIDENT'S REPORT

Well here we are again, we are now into the month of May, next month is the sixth month of the year. Not all that many outings or meetings to go before our big events of the year, our "Concours D'Elegance" and of course the annual "Presentation Dinner".

So for the people who are going to enter the Concours please do not forget that your entry vehicle has to be presented to a certain number of outings or meetings.

Also you should be checking your entrant over to make sure everything is ship-shape, ready for the big clean up so that on November 3 we have a fine selection of vehicles to admire. Not only for the club members but the visiting public to also admire.

The run to Kyneton on 5th May is now behind us, weatherwise we certainly were lucky, the run was completed in sunshine, although at one stage when we were at the picnic area at "Lauriston", it looked a bit dark but happily it passed over.

"Bendigo" members who drove down were a most welcome sight and can assure you we all had a good chin-wag. The Kennedy's called in to the market at "Gisborne" on the way home but I must report it was a bit of a flop, maybe we were too late, and missed out on all the goodies.

After my remarks in my last couple of reports on 'attendance' and 'be on time' I have noticed a slight improvement, this is very pleasing to the people who put so much work into arranging these events and I'm sure we can continue to improve as we go along.

For the people who missed out on the last meeting all I can say is you missed out on a very interesting talk from "Windscreen O'Briens". The members that attended learnt alot about the mass of glass which we all look through when driving.

Well enough for this month, look forward to seeing as many members as possible at the next meeting and outings.

Regards,  
Bob Kennedy

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MINUTES OF GENERAL MEETING OF H.C.C.V. HELD ON 26.4.85 AT DEEPDENE HALL.

President Bob Kennedy opened the meeting at 8.25pm and welcomed the members and visitors present.

APOLOGIES: Horold & Adelaide Underwood, Pam Batten, Vic Wilson, Nancy Kennedy, Lloyd Hughes.

MINUTES: Minutes of the last meeting were read and confirmed as correct. Moved Peter Davenport; seconded Jack Waring.

CORRESPONDENCE: IN:-

D.Fox(Wangaratta)-Tourist information brochure, P.Daly - confirmation of speaker bookings. Reservoir Copying Services/G.R.V. Printers - account for payment.  
2 new membership subs.

CLUB MAGAZINES FROM: H.C.C.V./S.A./N.Z., Austin MVC, A40, CHACA, Hornet, Chevrolet, Daimler, Lanchester, Rover.

OUT: Wolseley C.C. - Confirmation of July outing. Deepdene Hall Committee re Roncours. Chevrolet Car Club - re: Talhof outing, August. 2 Membership application forms. Correspondence received: D. Dunlop, seconded D. Judd.

#### TREASURER'S REPORT

Financial Statement for April 1985.

Current A/c Balance 22.4.85	\$1012.18
Plus Deposit 22.4.85	<u>\$ 104.00</u>
	<u>\$1116.18</u>
Less-	
Unpresented cheque	\$ 94.00
A/C for payment-GRV Printers	\$ 260.00
Petty Cash reimbursement	\$ 7.15
Scarves (Printing)	<u>\$ 64.00</u>
	<u>\$ 425.00</u>
Balance of Current Account	<u>\$ 691.03</u>
Debenture Stock A/C:	
(\$500 transferred from current A/C on 26.3.85)	
Balance	\$1500.00

Treasurer's report received ; moved K. Willimott, seconded P. Davenport.

#### EDITORS REPORT

135 Magazines were forwarded this month including exchange magazines with other clubs. Barry thanked those members who had sent in magazine items, they will be included over the course of the remainder of the year.

#### LIBRARIAN'S REPORT

Box of books has now been collected from Murray Robert's and sorted. Holdings are light on literature relating to model series cars and sales brochures. A bulletin board has been provided for items of interest each month.

#### SOCIAL SECRETARY'S REPORT

Need for promptness at starting point for next outing. Market visit during the morning. Forms for Golden Lantern (End of Year Dinner) were distributed. Return at end of meeting. Raffle prizes-2 choices-donated by Ron Forth and Keith Willimott.

#### GENERAL BUSINESS

1. For Sales and Needs: Vic Wilson requires a red front seat for '64 Snipe. Mark IVA S.Snipe for sale plus another one for spares (03) 397 7836. Series II vogue - registered, needs attention.
2. Unleaded petrol - comment by President.
3. Vintage Drivers Club - swap meet. Best bargains on Friday night, other items as well as car parts etc.



4. Presentation dinner - date and location were discussed. Majority decision for Golden Lantern on a Saturday evening.

5. July Outing - Monash University has been booked with shelter, sporting facilities and BBQ. Norm Watt spoke on the extent of facilities available.

6. Trading table - All remaining spares from Bob Thwaites garage are now at the Dunlop's and will be put on trading table for disposal and benefit to the Club.

7. October Meeting - It was suggested that this 10th birthday meeting should take the form of a smorgasbord tea commencing at 7pm, comments on this are requested.

8. Shorter Meetings - Des Judd moved, Rob Dunlop seconded that minutes at general meeting be taken as read. Following discussion this was passed by majority vote.

9. Presentation of detailed financial statement - Bill Holmes moved that a detailed financial statement be presented at meetings once every quarter, on other occasions credit balance only be required. Seconded D. Judd. Carried.

10. Amplifier for meetings - Bill Holmes asked what action had been taken on this. In answer the President indicated that the current system was on loan and available when needed. Further investigation on suitable system will be done.

11. Norm Watt gave a brief report of his Snipe 80 being used as principal conveyance for Channel 9 T.V. personalities last Monday.

Meeting closed at 9.35 pm and the President introduced Mr Mike Stewart, State Manager of Windscreens O'Brien, who gave an interesting address on the manufacture and repair of car windscreens.

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#### SECRETARY'S NOTES

Hello Everyone,

I hope you are enjoying the new Humberette segment on member's cars. We plan to include a variety of models over the coming issues. If you think your car is of special interest and would like to share its appreciation with other please send us a photo (ordinary postcard size, coloured or black/white), technical specifications, and a brief history of the vehicle. Now is your chance to make a worthwhile and painless contribution to your magazine.

This month we feature Arnold Goldman's Series V Super Snipe, you'll also be interested in reading Arnold's contributed article on the cars' performance during a recent holiday trip.

As I write this we are preparing to forsake the vagaries of Melbourne weather in May for a week in Sunny Queensland. No Humbers this time! - we recently discovered "Flexi fare" on the domestic airlines. It's quite an economical method of travel when time is not a major consideration. At the rate petrol prices are currently rising it could soon prove cheaper than travel by car! Though I must say I have never known any Humber to go on strike and with the present unsettled state of Queensland's Airlines we may still have to rely on our trusty four-wheeled steed.

We've more than one reason to be grateful for driving an older model car. Did you read the recent statement made by Mr Brian Keane, General Manager of AAMI at their annual meeting? He puts the major factor in increased car repair and insurance charges down to a combination of now "low-drag" designs whose panels cannot be satisfactorily repaired, and the incorporation of plastic compounds in the components of these "new generation" cars.



To quote some figures:-

Traditional pressed steel wheels (repairable)- \$55  
Alloy wheels (non repairable) \$144  
Re-alignment, modern front wheel drive vehicles \$120

Traditional rear wheel drive cars are much less than this. It will be interesting to hear the result of tests presently being conducted by AAMI and the VACC to determine performance of new panels and components against 5 year old models under crash conditions.

Incidentally speaking of panels, components (non plastic, mechanical, electrical, etc.) what do you think of the idea of forming an informal club register of spare parts available? I know Bob Kennedy is often able to satisfy the needs of Snipe owners and Hillman spares in Blackburn is another source of supply, but there must be many members with surplus parts who would be willing to have them placed on a club register. How often at meetings/outings do you hear someone say they had great difficulty in locating a particular item when you had one stored under the house!

It's just a thought but I'd be pleased to hear your comments. We would need a volunteer to collate part information probably a standard form for recording details of items held and the periodical publication of a part listing.

That's just one idea! You might like to make other suggestions, or perhaps know of somewhere where we could store parts donated.

Our June and July outings are now well in hand. We're hoping to see some "day visitors" at Wangaratta during the Queen's birthday weekend. On the Sunday we leave North Cedars at 10.00 am for Chiltern where we plan to visit the House of Clocks, see the largest grapevine in Australia and inspect the historic Main Street which was used as a film set for Walt Disney's "To Ride a Wild Pony".

From Chiltern its on to Beechworth for a picnic lunch and afternoon inspection of some of the town's historic monuments including Ned Kelly's cell, The Rock Cavern, Chinese Cemetery, Powder Magazine and Golden Horseshoes monument. A BBQ/get together is planned back at Wangaratta for Sunday evening.

I hope those at our last meeting enjoyed the address from Mike Stewart of Windscreen's O'Brien. This coming meeting we'll have a further "technical" lecture from Mr Bob Thwaites, an ex-Rootes Group dealer.

Transport and airline strikes permitting, I hope to see you there.

Margaret.

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#### FOR SALE

Humber Vogue 1963, Series 11 Manual. Apricot with Ivory roof, registered, body fair with some minor dents and rust repairable. Mechanically fair, motor has been overhauled, front end needs rubber bushes. Price Neg: \$600-\$700. David Clark Ph: 723 2706.

Series IV S/Snipe, New exhaust system, alternator fitted, car complete & running. \$250. Ph: 789 6952.

64 H/Vogue, auto, Green with white top, red trim, V/good order, back seat never sat in, needs new exhaust. J. Bailey 97 Honolulu Ave., Beach Comber Estate, Phillip Island, Ph: (059) 52 1030.

Humber S/Snipe Series IV, white over grey, red int., very original RWC, 12 months reg., radial tyres, am/fm cass. \$1600 ono. Mr A. Bates Ph: 836 4002.

Mark IVA in very good condition, easy to restore, no rust, also Mark IVA for spares ring (03) 397 7836.

1955 Humber S/Snipe, trim and carpet very good, good tyres, mech very good, paint and body good. R.W.C. \$3,000 ono. Ray Pepprell ph: 729 3930.

Humber Super Snipe (model unknown) - wrecking only. \$80 Mrs C. Carr, 13 Merrydale Street, Maffra 051 47 2238.

TYRES:- 1 700-750 x 15 brand new \$60. 2 700-750 x 15 recaps good cond, \$25. 1 700-750 fair condition \$10. 1 670 x 15 nearly new \$40. Ray Pepprell 729 3930.

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MEMBERS ATTENDANCE KYNETON RUN 5/5/85.

Holmes, Kennedys, Dunlops, Reids, Rowlinsons, McCorkelles, Pam Batten, Willimotts, Peter Davenport, B. Bosnich, also a "Call in to say hello" visit from Brendan Lyons.

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Humber Car Club of Victoria - Library.

#### Workshop Manuals

Snipe-Imperial-Pullman	MK 11 & 111	3x
Super Snipe - Series	1,11 & 111	1x
Super Snipe & Imperial	Series 1 to V	1x
Hawk	MK 111, IV & V	2x
"	MK 111, IV, V & VI	2x
"	Series 1 to IV	1x
Vogue	Series 1,11 & 111	2x
Borg Warner - DG auto transmission	1957 & 1964	1x each
" " 35 "	"	1x

#### Parts Book & Supplements

Pullman Snipe.		
" ambulance & Hearse	MK 11 & 111	1x

#### Heavy Duty Snipe Vehicles

Trucks - 1 ton 4x4	MK 1	
" - 1 ton armoured with winch etc.		1x
Snipe Super Snipe & Pullman	1946	1x
Super Snipe	Series 1	1x
Super Snipe Supplement	" 11,111 & IV	1x
Super Snipe Supplement	" 11 & 111	1x
Super Snipe Supplement	" 11	1x
Hawk - Parts Books	MK 111, IV & V	1x
	MK 111, IV, V & VI	2x
	MK 111	1x
	MK 111 & IV	1x

Hawk	Series 1	3x
" Supplement	" 1	1x
"	" 1 to 111	1x

Vogue	" 1,11 & 111	1x
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Churchill Service Tools	1x
Payem Gasket Guide 1977	1x
Rootes Parts & Accessories Bulletin	1x
Repcos Master Parts Catalogue 1984	1x

Man Hour Schedules - Super Snipe MK 11,111 & IV  
Hawk & Super Snipe Series 1, 1A & 11  
Hawk Mk 111,IV & V

#### SALES BROCHURES

Super Snipe MK IV	1x
Salesmans guide Book - Super snipe MK IV	1x

#### OWNERS HANDBOOKS

Super Snipe MK 11	1x
" " MK IV	1x

Hawk 1948	1x
" MK IV	1x
" Series 1	1x
Vogue " 111	1x

#### INCIDENTAL MATERIAL

Restored Cars No. 52 & 53 The History of Humber  
Handy Workshop Tips Booklet  
Repcos Engine bearings  
PBR brake Parts Catalogue  
Borg & Beck Clutch Service Parts Book

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#### LIBRARIAN'S REPORT

As you can see there are quite a few gaps in our library, particularly in regard to Snipe workshop manuals and parts books. We are also sadly lacking in sales brochures of all models, which are very useful to make up suitable displays for club promotion. Over the next few months we hope to add a section on non technical material of general motoring interest.

Keith Willimott

\*\*\*\*\*

"Humbering Holiday" by Arnold Goldman, overleaf.

The judges at the Concour's in November who decided that my car must go because it was obviously driven there, may be pleased to learn that it has since done a return trip to Sydney and a return trip to Hervey Bay in Queensland.

It was in August last year that I decided to use the Humber for a holiday in Queensland instead of hiring a Falcon. This decision was met with some resistance by other members of my family who participated in a similar trip in January 1983, in a Series VA. On that occasion the car had been going so well for so long that I did not carry out the overhaul which was really due. The engine power was sufficiently down that driving up Mt. Victoria in the New South Wales Blue Mountains was enough strain to start a disastrous chain of events. The automatic gearbox did not change down, the oil pressure dropped and big end bearing wear was greatly accelerated. At Scone, in the Hunter Valley, the knocking was sufficiently loud for us to abandon hope of progressing further north and I attempted to nurse the Humber home for repairs. We made it to Ulladulla on the New South Wales south coast before the engine gave up. The head gasket had failed, pressurising the water system, and bursting the radiator. I later found that some of the welsh plugs were so thin that they could have gone at any time.

Anyway, the Series V had been thoroughly checked out and would not have any of these problems. On the day after the Concours, at Ballam Park, I took the car up to Sydney on a working visit to check out the performance on a long drive. Apart from losing the front windscreen at Goulburn on the way home, the Humber performed well, doing 22 miles per gallon. With the front window missing we were able to comfortably travel at 100 kph with all windows would up, and the rear quarter vents partially opened to relieve pressure on the rear window. Fortunately there was no rain. The only available windscreens were from Hillman Spares in Melbourne, or through the Humber Car Club in Sydney. Either way would have meant a 2 day delay at least, especially as it was Thursday evening.

The Series V now has the windscreen out of the Series VA, which has been pensioned off for spares.

The trip to Hervey Bay was uneventful in terms of motoring problems. The Humber performed beautifully and only required the radiator to be topped up once, and some oil to allow for the slight leak which still persists around the fuel pump area. I must fix that before the next club inspection. Along the way we kept an eye open for other Humber on the road but did not spot one until we reached Warwick in Queensland. I am sure they are around somewhere, but I suspect most of them are locked away in garages.

In Tenterfield, close to the New South Wales/Queensland border, we stopped at an old petrol station which still had a faded Humber sign over the workshop. The proprietor was at least 70 and I found him inside chatting with his father. He hadn't seen a Humber for at least 10 years he said. The cars in his garage were both Wolseleys, and his petrol pump was of the type without automatic cut-off and the price scale only went up to \$9.99.

In Warwick we saw a Series 3 or 4 Snipe driven and later parked in a house driveway. The next one was a Series VA at Hervey Bay but we did not ascertain whether it was locally owned or just visiting.

Travelling down the Pacific and Princes Highway to Dandenong we probably saw no more than 5 Snipes and the same number of Vogues, which is probably all that one would expect for cars around 20 years old.

Before the trip, I had removed my toolbox from the boot, to make room for other holiday luggage, and pruned the tool kit down to a few spanners and spares. I only opened the tool kit once, and that was to fix a faulty zipper on a pair of shorts.

The longest day's drive was 463 miles on the last day home from Batemans Bay. The whole trip was 3,287 miles at an average of 20 miles per gallon, which is not as good as it could be.

# Workshop

## ENGINE CONSTRUCTION & OPERATION

### CYLINDERS

The engine structure must be strong enough to withstand tremendous forces, both explosive and in turning power (called Torque-- pronounced Tork) applied to the crankshaft.

For practicality of construction and maintenance there are two basic parts bolted together. The cylinder block and the head.

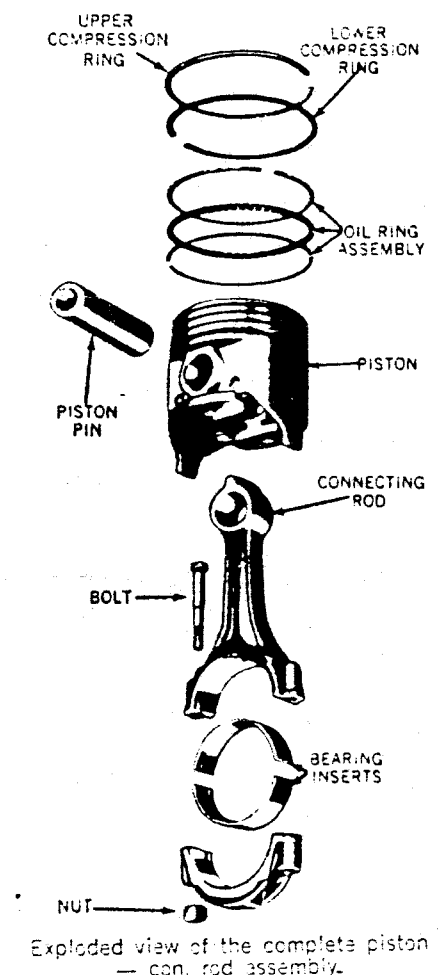
The two parts are usually of cast iron, but aluminium is sometimes used for it's lightness and it's ability to conduct heat. Aluminium castings need steel inserts for cylinder walls, valve seats etc as aluminium is too soft for these parts.

In the block are moulded the cylinders, places for crankshaft bearings & camshaft bearings, passages for push-rods to operate the valves and passages for cooling water to circulate.

In the cylinder head, there are usually two valves per cylinder (more advanced designs often use four for better breathing characteristics) an inlet and exhaust port for each cylinder and combustion chambers, one for each cylinder.

In each cylinder there is a piston. The essential components of a piston are shown at right.

Two compression rings which fit and follow the cylinder walls to maintain compression. An oil ring to remove excess oil from the cylinder walls and return it to the sump. A connecting rod, which connects the piston to the crankshaft. A piston or gudgeon pin on which the con rod pivots in the piston at it's "little end". At the other end of the conrod is the "big end" bearing within which the crankshaft rotates.



## ENGINE CONSTRUCTION & OPERATION CONT/.

### THE CRANKSHAFT (To crank is to turn).

The crankshaft converts the up and down motion of the pistons into rotary motion. The pistons being connected to the crankshaft via the connecting rods (con-rod for short). The power strokes turn the crankshaft on the end of which is bolted the flywheel. It is this turning of the crankshaft which institutes the turning of the driving wheels.

The crank is mounted in the crankcase, a hollow space moulded into the engine block below the cylinders. Provision for fitting of crankshaft and camshaft bearings etc. are also moulded into the crankcase (in an conventional engine that is).

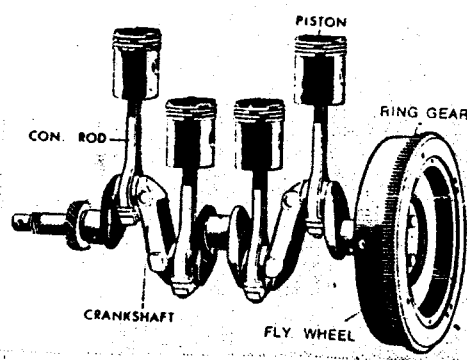
In the average engine, speeds of around 6000 rpm (revolutions-per minute) are experienced by the crankshaft, so it must be perfectly balanced or it will shake your engine to pieces (ever ridden in a vintage car you will know what I mean). The balance is achieved by using the 'webs' between the crank pins as balance weights. Accuracy is essential and so the shaft is machined to tolerances of 1/1000th of an inch or less.

The power strokes of the pistons impose great strains causing a slight twisting and un-twisting of the crankshaft. This is called "Torsional Vibration" and is largely controlled by a damper... a rubber ring inside a metal disc fitted to the front end of the crankshaft.

As the power stroke is only one in four, measures must be taken to aid smooth running. One of these measures is a heavy, carefully balanced metal disc called the "Flywheel." The flywheel is fixed to a flange at the gearbox end of the crankshaft.

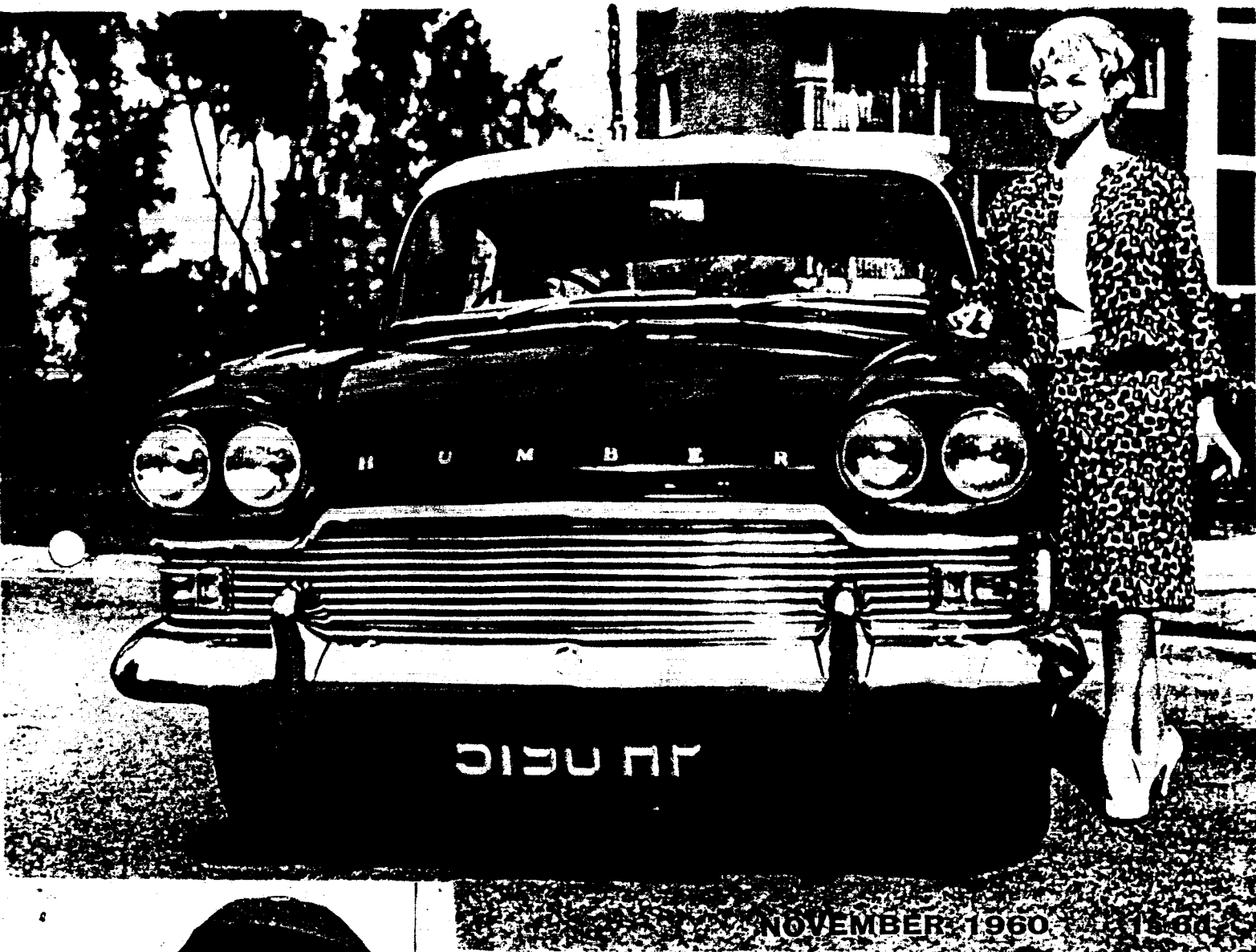
As well as keeping the engine running smoothly it also serves as the friction drive for the clutch and is also fitted with an outer "Ring Gear" which takes the drive from the starter motor.

Continued next month, when we will deal with valve gear and valve timing.



ASSEMBLY OF PISTONS, CON. RODS  
CRANKSHAFT AND FLYWHEEL.

Max Heazlewood.

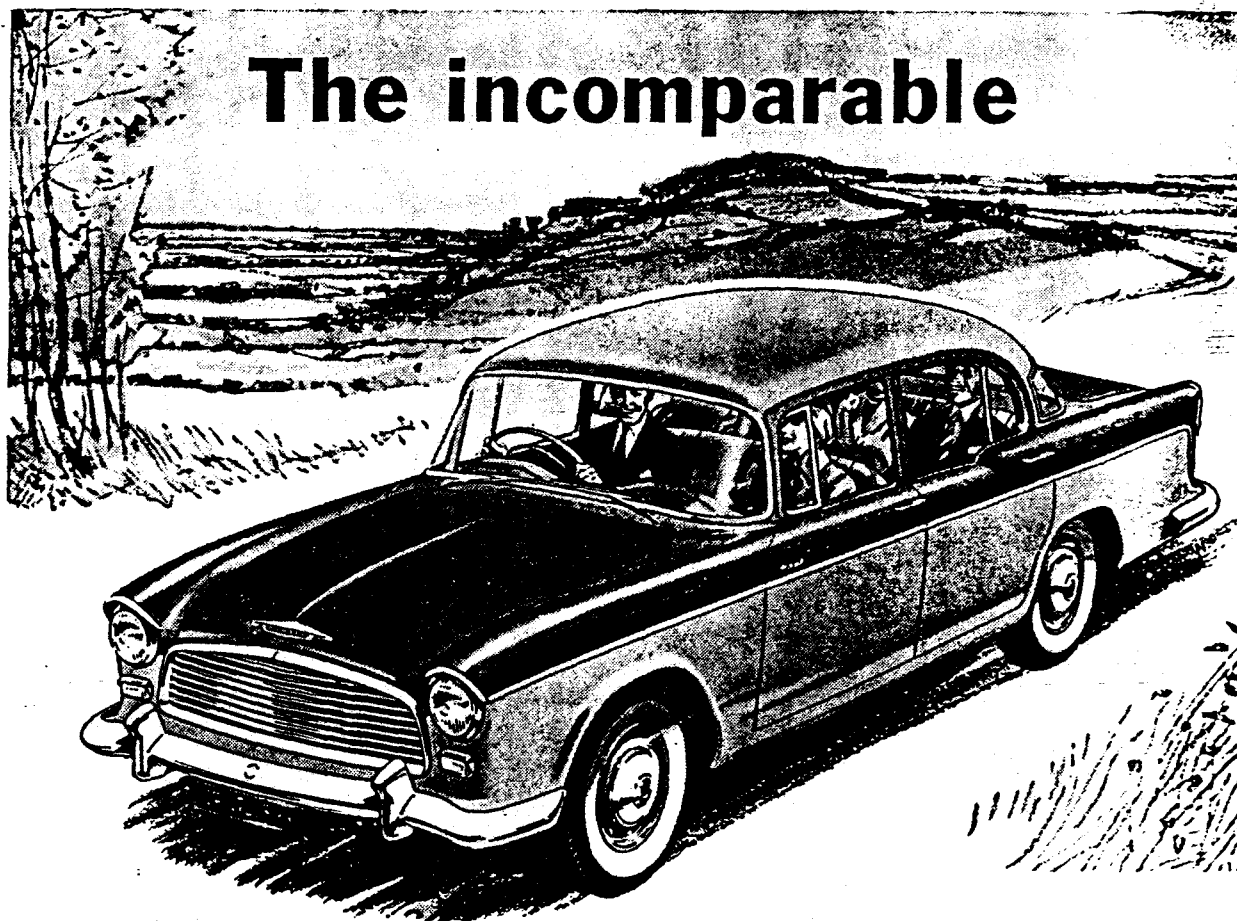


World Champion Jack Brabham chose a slower means of transport than the sort he usually drives when he went from Australia House in the Strand, London, to the Food Fair at Olympia early in September. The car is a 1909 Humber landau. His passengers are six Australian girls who helped to promote their country's produce at the Fair



Holiday in the sun for comedian Tony Hancock—and no doubt it was well earned. Here he is with his wife at Ferryfield as their new Humber Super Snipe estate car is loaded on board a Silver City Airways car ferry for the first leg of a trip that took them through France into Spain





**The incomparable**

# HUMBER HAWK

SALOON · LIMOUSINE · ESTATE CAR

The features of safety, luxurious comfort, and smooth, sparkling performance have never been more successfully combined than in the distinguished Humber Hawk

## Comfort

Exceptionally wide doors plus a 'step-down' floor give remarkably easy access to the luxury of a 6-seater interior that is inches more roomy in every direction.

## Performance

The powerful Humber engine, reliable and economical, gives an excellent all-round performance—smooth power at your command.

## Safety

Tough unitary construction ★ panoramic visibility ★ balanced weight distribution  
★ precision steering ★ instant response  
...vivid acceleration and powerful brakes.

**TOURING ON THE CONTINENT** Continental Touring Scheme vouchers are available to all owners of Humber, Hillman and Sunbeam cars to cover repairs and replacements on the Continent. They are obtainable for sterling in the U.K. leaving your travel allowance intact. Ask your Rootes Group dealer for full details.

WITH FULLY AUTOMATIC TRANSMISSION OR  
OVERDRIVE AVAILABLE AS AN EXTRA



A PRODUCT OF

## ROOTES MOTORS LTD

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# HUMBER SPARES



## HILLMAN SPARES & REPAIRS BLACKBURN

While our first concern will always be Rootes Group Spares (Australia's Largest Range), we have now moved into stocking all model English Spare Parts, but as always we are eager to buy collections of new English Spares for Australian dollars.

The King Pins stored in somebody's garage, may be the set that Mrs. Smith of Charters Towers needs for her 1948 Rover.

Telephone and mail orders most welcome.

We recommend C.O.D. post for next day delivery to most areas.

HILLMAN SPARES AND REPAIRS  
178 Whitehorse Road,  
Blackburn, 3130  
P.O. BOX 19, BLACKBURN, 3130  
Telephone: (03) 877 4311, 5 Lines

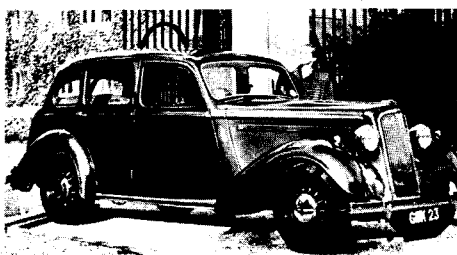


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(VIC) PTY. LTD.

## THE CLASSIC CAR INSURANCE SPECIALISTS

**NEW RATES  
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**NEW RATES  
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## SHANNON'S CLASSIC CAR CENTRE P/L

321 WARRIGAL ROAD, CHELTENHAM, 3192

TEL: (03) 584 7266

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