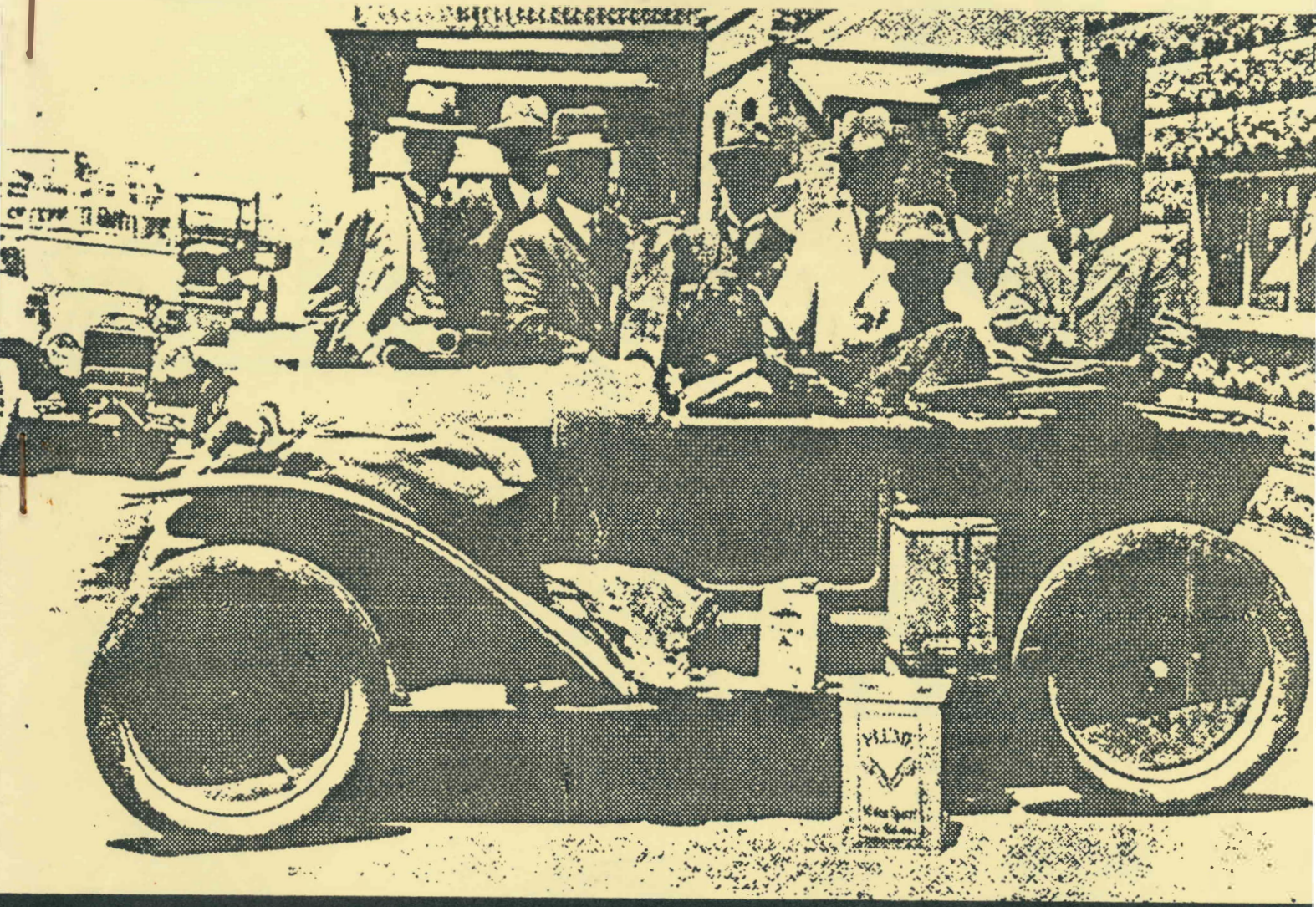
FRONT DRIVE

BX HERE



No.1 AROUND AUSTRALIA

Citroën

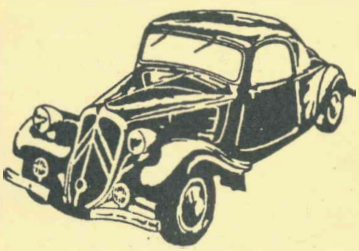
FRONT DRIVE VOLUME 9 No. 6 March/April 1986
Registered by Australia Post Pub. No. VBH 2127

Windcheater & Tshirt designs

ROADSTER

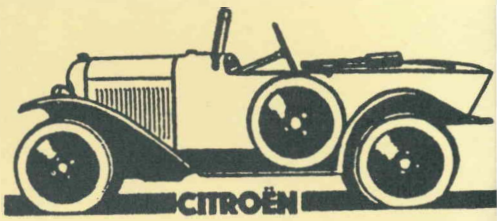
AVAILABLE ONLY TO
2 CYLINDER OWNERS
& ONLY GREEN ON
YELLOW COLOURS.

CLUB BADGE
3 SIZES:
SMALL (BREAST POCKET)
MEDIUM, LARGE



COUPE

2CV



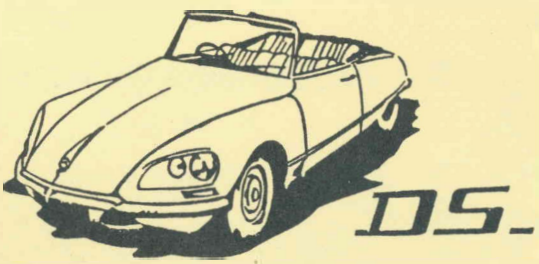
5CV
BREAST POCKET
SIZE ONLY

LIGHT 15

ANNIVERSARY

SCROLL
BREAST POCKET
SIZE ONLY

BIG 6



DS

CHEVRON BADGE

Dates of issue for magazine: Mid-January, March, May, July, September, November.

Closing dates for copy: Mid-February, April, June, August, October, December.

CCOCA IS A MEMBER OF:

ASSOCIATION OF MOTORING CLUBS

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FRONT DRIVE
The magazine of the Citroën Classic Owners Club of Australia

CCOCA COMMITTEE

PRESIDENT:
John Couche
2 Wimborne Crt.
North Bayswater 3153
Ph. (03) 729 7470

SECRETARY:
Peter Simmenauer
6 Rubens Gve.
Canterbury 3126
Ph. (03) 82 6539

TREASURER:
Edward Cross
26 Fyfe Dr.
Templestowe 3106
Ph. (03) 850 4938

SPARE PARTS OFFICER:
Russell Wade
6 Dallas Ave.
Oakleigh 3166
Ph. (03) 570 3486

ACTIVITIES OFFICER:
Mark McKibbin
57 Roseneath St.
Clifton Hill 3056.
Ph. (03) 489 4747.

SOCIAL OFFICER:
Peter Boyle
35 Newman St.
Thornbury 3071
Ph. (03) 480 3560

EDITOR:
Bill Graham
18 Gareth Dve.
East Burwood 3151
Ph. (03) 232 0361

CLUB SHOP:
Robin Smith
411 Glenhuntly Rd.
Elsternwick 3185
Ph.(03) 527 5429

LIBRARIAN:
Peter Simmenauer
6 Rubens Gve.
Canterbury 3126
Ph. (03) 82 6539

CCOCA POSTAL ADDRESS:
P.O. Box 377
Boronia, Vic. 3155

EDITORIAL

Finally, the Citroen BX is available in Australia, and an impressive car it is too. Sheer luxury, yet enough "hands-on" to satisfy the "driving motorist". Pricey, but certainly not ridiculous when you consider the spiralling prices of the often less inspiring opposition. Economical too!

Time too for us to recall the first car to go round Australia. Appropriately, a Citroen - the tiny 5 CV. Also, a road test of a Panhard, "Citroen's Cousin".

Restoration fever in the air in anticipation of the club's 10th anniversary tour? Looks like it, and we're doing our bit to pass on restoration information from members and other sources. Have you sent your tips in yet? Act now!

A call from Olivier de Serres for Australian Citroen information - see Letters column.

Coming activities: Think about helping on the Committee, roll up at the AGM. Take a look at the 1986 Rally Calendar. How about coming to Campaspe Downs for Austraction 86 in June - a great spot for a Citroen gathering.

And finally, a swan-song from El Presidente, John Couche. A hard act to follow, and all the more reason for you to show up and maintain the CCOCA standard.

Bill Graham, Peter Simmenauer,
Paul Chapman, Peter Hore.

COMING RALLIES

March 22, Saturday	Annual Club Dinner, Greis's.
March 26, Wednesday	Annual General Meeting, Nunawading.
April 4-7, Friday - Monday	Easter Cit-in, Adelaide.
April 13, Sunday	Economy run/new members day.
April 23, Wednesday	Open night, Nunawading.
May 4, Sunday	Practical workshop.
May 30 - June 1, Fri.- Sun.	Vintage Drivers W/S & Swap, Melbourne Showgrounds.
June 7-9, Sat.- Mon.	Austraction 86, Kyneton.

CCOCA MEMBERSHIP:
Annual Subscription: Full Member $20.00, Associate Member $15.00

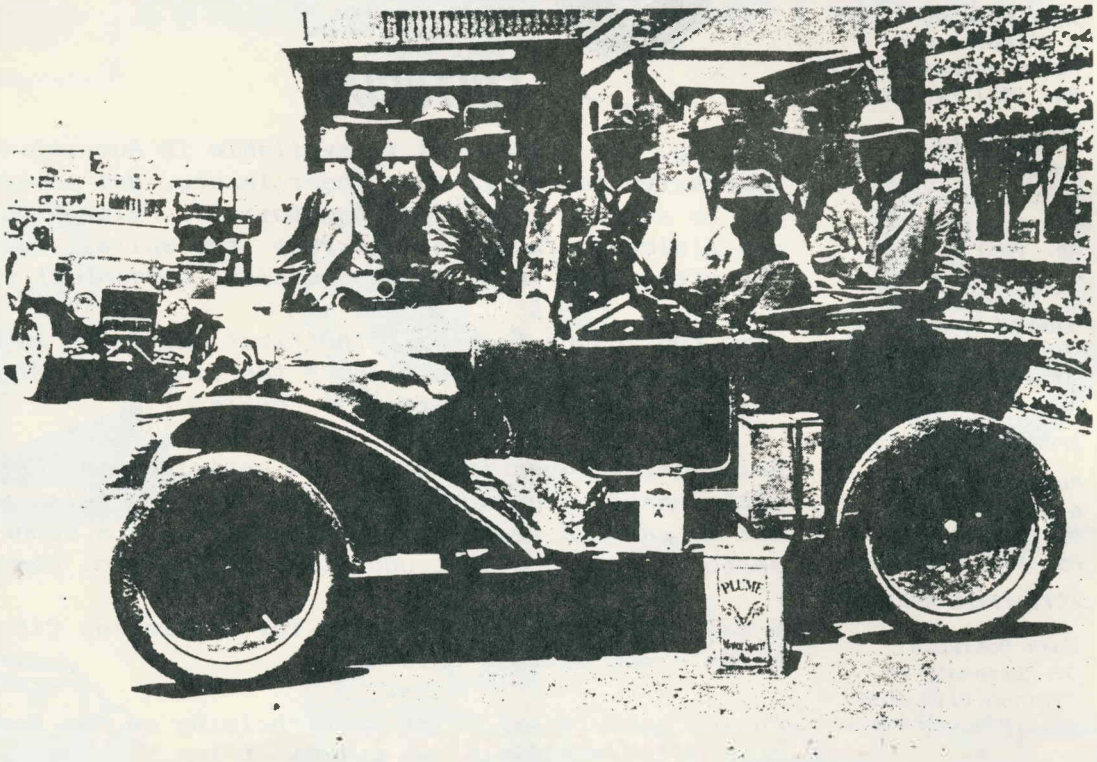
Joint Membership available to spouse of full member, no cost.
Overseas postage rate: additional $7.00.

Meetings are held on the last Wednesday of every month at 8.00 pm at the Coffee Shop* Meeting Room at the Nunawading Civic Centre, Maroondah Highway, Nunawading, east of Springvale Road.

Printed by Veevers Printing Co., 121 Ferrars St. Sth. Melb. 3205.

*NOTE: THE COFFEE SHOP AT THE NUNAWADING CIVIC CENTRE IS NOW CALLED THE COURTYARD ROOM

No.1 AROUND AUSTRALIA



Missionary N. R. Westwood and his 5 h.p. Baby Citroen, completed a tour Round Australia. Mr. Westwood left Perth on August 4th, 1925, with the object of touring Australia. He attained his object, passing through Meekatharra, Broome, Derby, Hall's Creek, Emungalan, Lake Nash, Longreach. Morvin, Brisbane, Sydney, Albury, Melbourne, Adelaide, arriving back in Perth on December 29th. The total distance covered was 10,700 miles through all kinds of country.

THE FIRST MOTORIST TO ENCIRCLE AUSTRALIA BY MOTOR CAR

Outback Australia is a land of striking beauty and character, ranging from arid semi-desert of "The Centre" to the tropical north. Much of it has long been a trap, often fatal, for the ill-prepared, unwary or unfortunate traveller. Explorers and others have perished in its vast tracklessness. Even today, fatalities along the lesser used tracks are not unknown, and although tourist buses are thick along the major routes, unsealed dusty tracks are the norm and watering places are far apart. In much of it, the best adapted immigrant is the camel.

Such an environment is clearly a challenge to the spirit and persistence of Man, beast and machine. It is no great surprise to find that motor vehicles from the factories of M. André Citroën soon appeared in this challenging environment, and one, a tiny 5 CV, produced only four years after Citroën started producing cars in his own name, became the first car to be driven round the perimeter of the Australian continent.

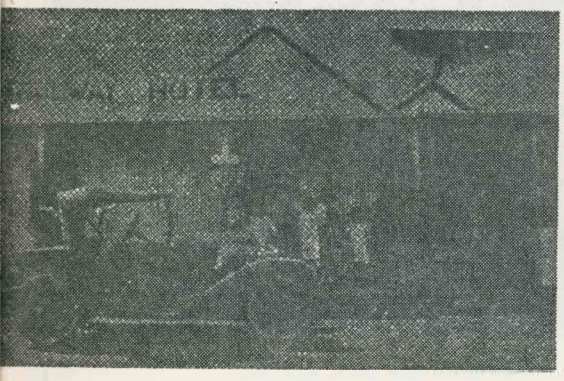
Neville Westwood set out from Perth in his 1923 Citroën 5 CV on 4 August 1925 and headed north with a companion, Greg Davies. They circled the continent and arrived back in Perth on 29 December of the same year, covering a distance of 10 700 miles (17 200 km) in 147 days. It is remarkable that such a tiny car survived such an ordeal when one considers the relatively early state of automotive development and the particularly primitive condition of the roads in the outback at that time. No doubt, its light weight rather than power output was an important factor in its success. That a Citroën was the first car to go round Australia is perhaps less of a surprise to enthusiasts of the marque.

In 1975, Australia's "Mr Citroën", Jim Reddiex of Brisbane, decided to re-enact the round-Australia trip in another 1923 5 CV, on the 50th anniversary of the original venture.

Jim was accompanied by a support team of five which aimed to cover 400 miles per day through shared driving, and taking a total of 21 driving days for the trip. The team met Citroën club members along the way who provided an escort service to the gallant "Bubsie Too". Some other details of the re-enactment are shown in contempory publicity, some of which is reproduced here. It is understood the original car, "Bubsie" still exists in Western Australia. In recalling and commenting on the Reddiex re-enactment, Melbourne Citroën dealer Geoff Dutton thinks that the supporting Citroën GS which pulled a caravan for the team did almost as great a job as Bubsie Too herself!

Bill Graham.

THE GREAT AUSTRALIAN ADVENTURE 1925 - 1975



Perth 1925, two young men set out north to pit their courage, initiative and a baby 1923 Citroen against the elements of the back tracks of northern Australia.

Neville Westwood and Greg Davies were to become the first in history to drive a motor car around Australia.

The car that they used was a 7 h.p. Citroen 5 C.V. A four cylinder engine of 850c.c. was the powerful heart that carried the two adventurers and their car affectionately called "Bubsie" through bush, sand and many obstacles encountered.

Picture above shows the tiny Citroen at Emmungulan in the Northern Territory.

"Bubsie Too", the restored 1923 Citroen of Jim Reddiex pictured with The Great Australian Adventure team the night before departure from Brisbane.

From left.. Jim Reddiex, B. Ovens, B. McGowan, T. Ruddick, I. Ryan and P. Hetherman.

The Great Australian Adventure extends its gratitude to

K. Albury — Upholsterer
Automotive & Marine Electrical
Bryant Engineering Works, B'bane
Citroen Car Club, Queensland
Diff Lapping Service
Mr. G. Lambert of Coolum
Newmarket Road Radiator Works
Safe-T-Brakes Pty. Ltd.
Shute-Upton Engineering Pty. Ltd.
Mr. Richard Smith
Adidas Sports Gear
Mr. Noel Williams Toogoolawah
Cinecolor Film Laboratory
Mini-Studios Photographer 551257

And now - 1975

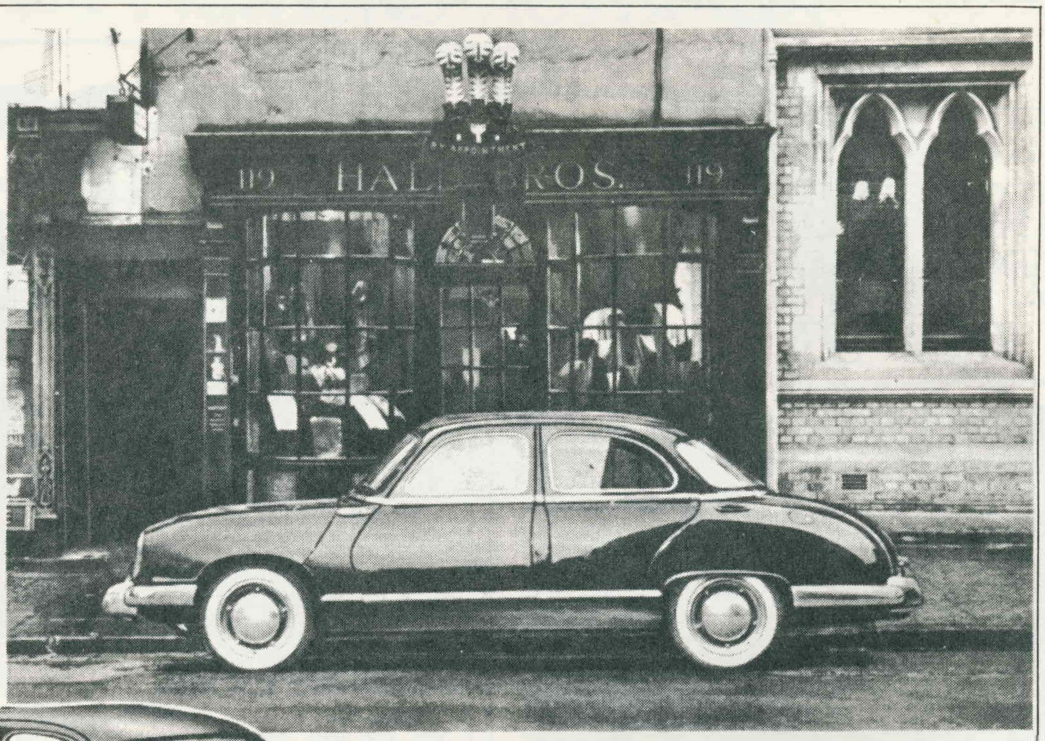
Australia's World Cup Rally winner Jim Riddiex decided, after seeing a photograph in a magazine, that to mark the golden jubilee of that first epic tour around Australia in 1925, he would restore an identical Citroen and drive it around Australia.

This journey in 1975 has to be completed in just over four weeks. By driving in relays the team will cover 400 miles a day and by so doing will cover the distance in twenty one driving days. A very big task for the 52-year-old Citroen.

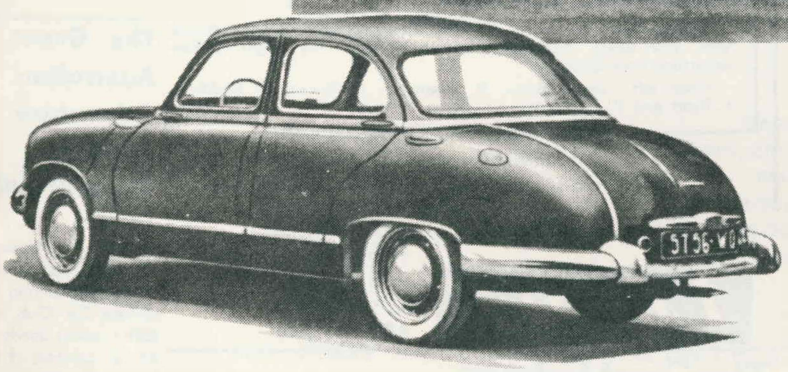
The team taking part in this 50th anniversary drive are:—

JIM REDDIEX Team Leader/Auto. Engineer
PAT HETHERMAN Lead Car/P.R.
TREVOR RUDDICK Auto. Engineer
IAN RYAN Navigator/Cine Camera
BRIAN McGOWAN Team Supplies/Accounting
BOYD OVENS Photographer

Each member takes his turn at driving the vintage car whilst in transit. All the team members live in Brisbane the capital city of the Sunshine State of Queensland.



From the side the Panhard has a very pleasing appearance. Flowing lines are designed to cheat the wind and the glass area is large, particularly at the rear, where the window curves forward and provides very good visibility. Flashing direction indicators, which can also be used as parking lights, are built into the sides of the body to the front and rear of the doors. Polished strips are placed at the waist-line, around the edges of the side windows, on the bonnet, and on the sides of the luggage locker. A combined tail and reversing light is placed above the rear number plate, and red reflectors are fitted to the lower corners of the locker lid. The five-stud fixing for the wheels can be seen.

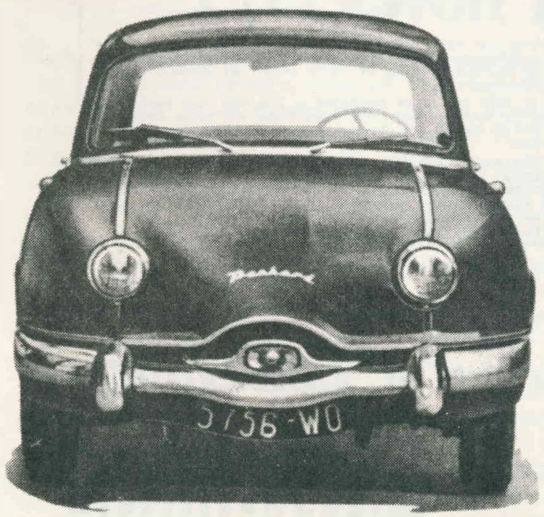


DYNA

PANHARD 54

ALTHOUGH it is now several years since the Dyna Panhard 120 saloon was road-tested by *The Autocar*, the results obtained regarding performance in all its many phases—particularly fuel consumption—were outstandingly good. The car, powered by an engine of just under three-quarters of a litre, returned a maximum speed of 71 m.p.h. Thus the opportunity to carry out a test on the latest car produced by the well-established firm of Panhard and Levassor was eagerly awaited.

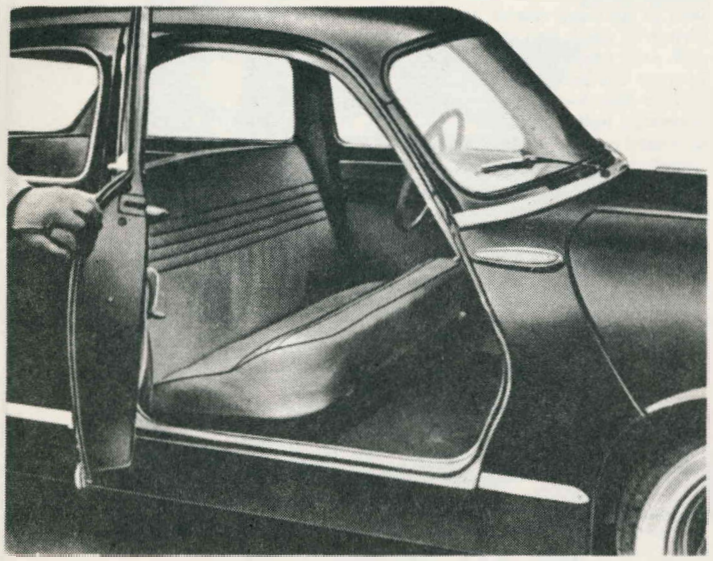
Compared with the previous model, the general appearance has been completely changed. A spacious, full-width streamlined body creates the impression that the car is at least in the 1½-litre class, yet it is powered by an engine of only 850 c.c. However, it should not be thought that the combination of a large, roomy body and a small engine has resulted in a car that is convenient for the family but leaves something to be desired as regards performance—nothing could be farther from the truth. Under test conditions the Panhard returned a mean maximum speed of some 75 m.p.h. together with an overall fuel consumption of 34 m.p.g.



This fine performance has been achieved by adopting a very practical approach to vehicle design. To enable the car to move through the air without requiring an unnecessarily large amount of power, it must have a good streamlined shape, but this is only half the problem, for it is necessary to keep the weight down to an absolute minimum; it is the combination of these two features that has produced the present model. Mechanically, the Dyna 54 is in many ways similar to the previous model. It has front-wheel drive, a horizontally opposed air-cooled twin-cylinder engine, and a four-speed gear box, top gear being an overdrive.

The Panhard combines many of the fundamentals desired by a large section of the motoring public—passenger space, performance and low petrol consumption—but no vehicle manufacturer can produce something for nothing, and on the opposite side of the balance sheet must be recorded the fact that the noise level is higher than one would normally expect to find on a car with a similar-sized body. In the interests of weight reduction it is not possible to provide the amount of insulation that might

Air to cool the finned twin cylinders passes through the intake duct just above the front bumper. A centrally mounted fog lamp is attached to the structure of the car, and the main head lamps are flush in the bonnet.



The interior is free from frills and is trimmed in plastic material. The lever on the left-hand side of the car adjusts the single bench seat, which has a raised portion on the leading edge of the cushion to give increased support.

ROAD TEST . . . . . continued

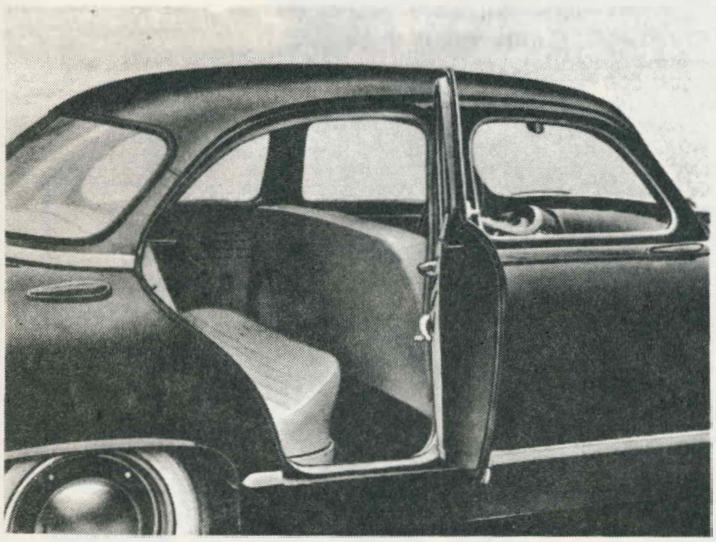
be used if the car had a larger engine. Further, the use of two air-cooled cylinders may intensify the noise problem. The air temperature was very low when this test was performed, as can be seen from the data, and in these conditions the engine performed particularly well, proving that the air-cooled unit did not suffer from over-cooling, either as regards fuel consumption or general running. There is no thermostatic device on the air-cooled unit to help maintain the desired operating temperature.

Apart from some vibration in the lower speed range when it was pulling hard, the engine had a satisfactory degree of smoothness, but the Panhard is the type of car that requires intelligent use of the gears if best performance is to be obtained. The various gear ratios are selected by a steering column lever projecting from the casing round the steering column; the lever was on the right on the left-hand drive model used for the test. Synchromesh is provided on top, third and second, but on the car tested—which was an early production model and had covered a considerable mileage—the synchronizing mechanism could easily be beaten even by quite leisurely changes. There was a certain amount of roughness in the change mechanism, although it was sufficiently robust and well able to cope with fast gear changing.

The combination of upper and lower transverse leaf springs at the front and a one-piece axle supported by torsion bars at the rear provides the car with a suspension that produces a level and pitch-free ride under all normal road conditions. The suspension is soft enough to deal with bumpy surfaces, but sufficiently hard and well damped to give the car a taut feeling. There is a negligible amount of roll on corners even if they are taken quite quickly. Directional stability is good and there is a noticeable amount of understeer. With a front-drive car it is often difficult to provide a compact turning circle owing to the layout of the transmission line; on the Dyna the radius is perhaps slightly larger than on some cars of comparable size but, even so, it is sufficiently compact to enable the car to be readily manœuvred even in confined spaces.

There are 2½ turns from lock to lock and the steering is precise. The fact that the driven wheels are being steered introduces a certain amount of resistance to the driver, but this is not excessive and does not produce any noticeable fatigue on long journeys. No vibration is transmitted back through the steering wheel to the driver's hands and there is no very marked change in the handling characteristics of the vehicle, no matter whether it is cornering with the engine driving or on the over-run. This combination of suspension and steering results in a car that feels particularly safe on both fast main road stretches with open bends and secondary roads with corners which follow in quick succession.

In spite of the need for weight saving, large-diameter brake drums are used. The brake layout consists of hydraulically operated leading and trailing shoes for both front and rear wheels, the desired differential between front and rear braking being obtained by using smaller drums at the rear. Under test conditions the brakes were efficient at a quite moderate pedal pressure, and there was no tendency for them to grab in normal check braking. No fade was noticed even under continuous and repeated application, though a certain amount of smell came from the hot linings. This was not noticed under normal driving conditions.



The Panhard has a flat floor and there is plenty of room under the front seat for the passengers' feet. Small pockets are attached to all the doors.

Noise Level

Some wind noise was evident even when all the windows were closed, but very little transmission noise was noticeable and the suspension did not transmit road noise back to the body even over rough surfaces.

The proportions of the engine, together with the desire to obtain a good body shape, have resulted in the curved windscreen being well forward; it is a considerable distance from the driver's face. The relation between steering wheel and pedals is good and the driving position comfortable. There is ample space on the toe-board for the pedals, which are well placed and very comfortable to operate. Clutch and brake pedal pads are unusually large, and an organ throttle pedal is used. Heel and toe gear changing is possible.

There is a distinct "step down" over the door sill to the flat floor, and although the overall height is low, the seat is quite high off the floor, a feature which permits a good driving position for all builds of driver with only a small amount of fore-and-aft adjustment.

The Panhard has a large glass area and as a result there is good visibility. The screen is sufficiently curved to pre-

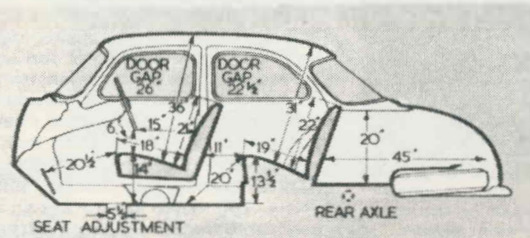
vent an excessive obstruction being formed by the side pillars, but although there is a particularly large rear window, the position of the rear view mirror on the car tested does not provide adequate rearward visibility or range; this drawback is being reduced on future models.

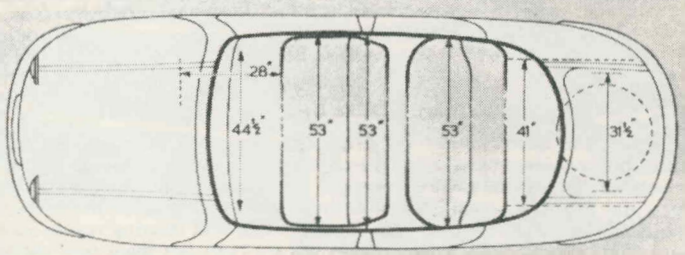
The driver is provided with three instruments: a speedometer with trip and total distance recorder, a fuel gauge and an ammeter (no oil-pressure indicator is provided). These are placed in front of the steering wheel and built into the cover which surrounds the column. They are provided with cowls but there is a certain amount of reflection in the windscreen at night. The minor controls are divided into two groups; the switches are placed on the casing between the steering wheel and the speedometer, and the remainder of the controls are in the lower casing below the steering wheel. It is necessary for the driver to put his hand through the steering wheel to operate the upper set of switches, or round behind the wheel to work the lower controls, which include the ignition master switch and a screen wash, as well as ignition, starter and choke. A cable-operated starter switch is used, and on the car tested this control was rather stiff and required a considerable amount of movement to operate the switch.

The five switches above the steering column control a reversing light, panel light, fog light, and also parking lights, arranged so that either or both sides of the car can be illuminated. A multi-position switch projecting from the left-hand side of the column controls the horns, lamps and direction indicators. If it is pushed in towards the steering column it operates a soft horn, while a further push brings the loud horn into operation. Rotating the lever a quarter of a turn clockwise switches on the side lamps, another quarter turn brings on the head lamps. The lever can then be moved up and down to operate the main and dipped

DYNA PANHARD 54

WHEELBASE	8′ 5⅛″
FRONT TRACK	4′ 3⅜″
REAR TRACK	4′ 3⅜″
OVERALL LENGTH	15′ 0⅜″
OVERALL WIDTH	5′ 2⅛″
OVERALL HEIGHT	4′ 9⅛″





Measurements in these ¼in to 1ft scale body diagrams are taken with the driving seat in the central position of fore and aft adjustment and with the seat cushions uncompressed.

PERFORMANCE

ACCELERATION: from constant speeds. Speed Range, Gear Ratios and Time in sec.

M.P.H.	4.7 to 1	6.15 to 1	9.2 to 1	16.3 to 1
10—30	18.7	13.6	8.1	—
20—40	18.7	12.1	8.3	—
30—50	19.6	12.6	—	—
40—60	23.9	16.7	—	—

From rest through gears to:

M.P.H.	sec
30	6.2
50	16.7
60	26.1

Standing quarter mile, 23.2 sec.

SPEEDS ON GEARS:

Gear		M.P.H. (normal and max.)	K.P.H. (normal and max.)
Top	(mean)	75	120.7
	(best)	75.5	121.5
3rd		50—62	80—100
2nd		32—44	51—71
1st		14—22	23—35

TRACTIVE RESISTANCE: 25 lb per ton at 10 M.P.H.

TRACTIVE EFFORT:

	Pull (lb per ton)	Equivalent Gradient
Top	134	1 in 16.7
Third	198	1 in 11.3
Second	295	1 in 7.5

BRAKES:

Efficiency	Pedal Pressure (lb)
52 per cent	30
90 per cent	50
97 per cent	70

FUEL CONSUMPTION:
34 m.p.g. overall for 126 miles. (8.3 litres per 100 km.)
Approximate normal range 32–38 m.p.g. (8.8–7.4 litres per 100 km.)
Fuel, French first grade.

WEATHER: Fine, dry surface, wind negligible
Air temperature 26 deg F.
Acceleration figures are the means of several runs in opposite directions.
Tractive effort and resistance obtained by Tapley meter.
Model described in *The Autocar* of August 28, 1953.

SPEEDOMETER CORRECTION: M.P.H.

Car speedometer	10	20	30	40	50	60	70	80	81.75
True speed	6	15.5	25	35	44.5	54.5	64	74	75.5

DATA

PRICE (basic), with de luxe special body, 760,000Fr. £775 10s at 980Fr £1.
Extras: Heater fitted as standard.

ENGINE: Capacity: 850 c.c. (51.9 cu in).
Number of cylinders: 2.
Bore and stroke: 85 × 75 mm (3.346 × 2.953in).
Valve gear: overhead, pushrods and rockers.
Compression ratio: 7.2 to 1.
B.H.P.: 42 at 5,000 r.p.m. (B.H.P. per ton laden 45)
Torque: 47 lb ft at 3,500 r.p.m.
M.P.H. per 1,000 r.p.m. on overdrive top gear, 15.05.

WEIGHT: (with 5 gals fuel), 14 cwt (1,573 lb).
Weight distribution (per cent): F, ol; R, 39.
Laden as tested: 17¾ cwt (1,987 lb)
Lb per c.c. (laden): 2.34.

BRAKES: Type: F, Leading and trailing; R, Leading and trailing.
Method of operation: F, Hydraulic; R, Hydraulic.
Drum dimensions: F, 10.04in diameter; 1.38in wide. R, 9.06in diameter; 1.38in wide.
Lining area: F, 53.3 sq in; R, 49.3 sq in (116 sq in per ton laden).

TYRES: 145 – 400 mm.
Pressures (lb per sq in): F, 17, R, 18.5 (normal).

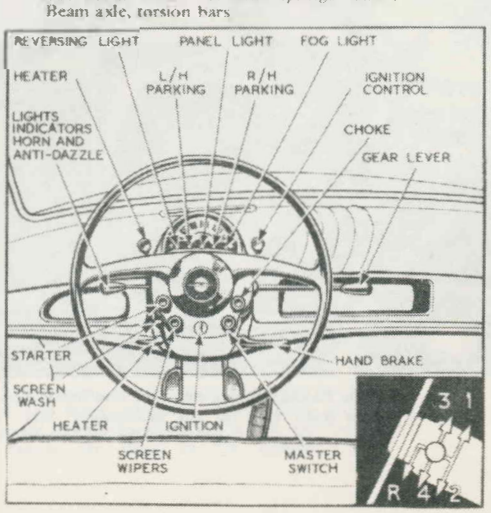
TANK CAPACITY: 8¾ Imperial gallons.
Oil sump, 4 pints.
Cooling system, air cooled.

TURNING CIRCLE: 32ft 10in (L. and R)
Steering wheel turns (lock to lock): 2¼

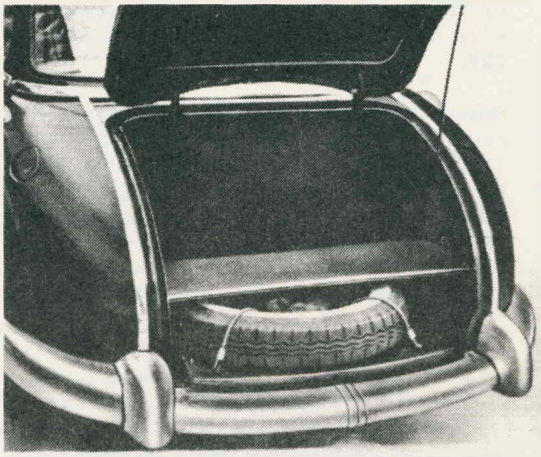
DIMENSIONS: Wheelbase: 8ft 5⅛in
Track: F, 4ft 3⅜in; R, 4ft 3⅜in.
Length (overall): 15ft 0⅜in.
Height: 4ft 9⅛in.
Width: 5ft 2⅛in.
Ground clearance: 7⅛in.
Frontal area: 19.5 sq ft (approximately).

ELECTRICAL SYSTEM: 12-volt; 40 ampère-hour battery.
Head lights: Double dip; 36-36-watt bulbs.

SUSPENSION: Front, Independent, upper and lower transverse leaf springs. Rear, Beam axle, torsion bars



ROAD TEST . . . . . continued



A generous locker has a separate lower compartment to house the spare wheel and tools. A strut holds the lid open.

beams. If it is moved *round* the column it operates the directions indicators; these are of the flashing type and the driver is aware of their operation by a clicking sound which comes from inside the casing. The electrically operated windscreen wipers are self-parking, and cover a large area of the screen; they would be even better if the wiper blades were a little higher up, and were arranged to overlap so that the central portion of the screen was cleared.

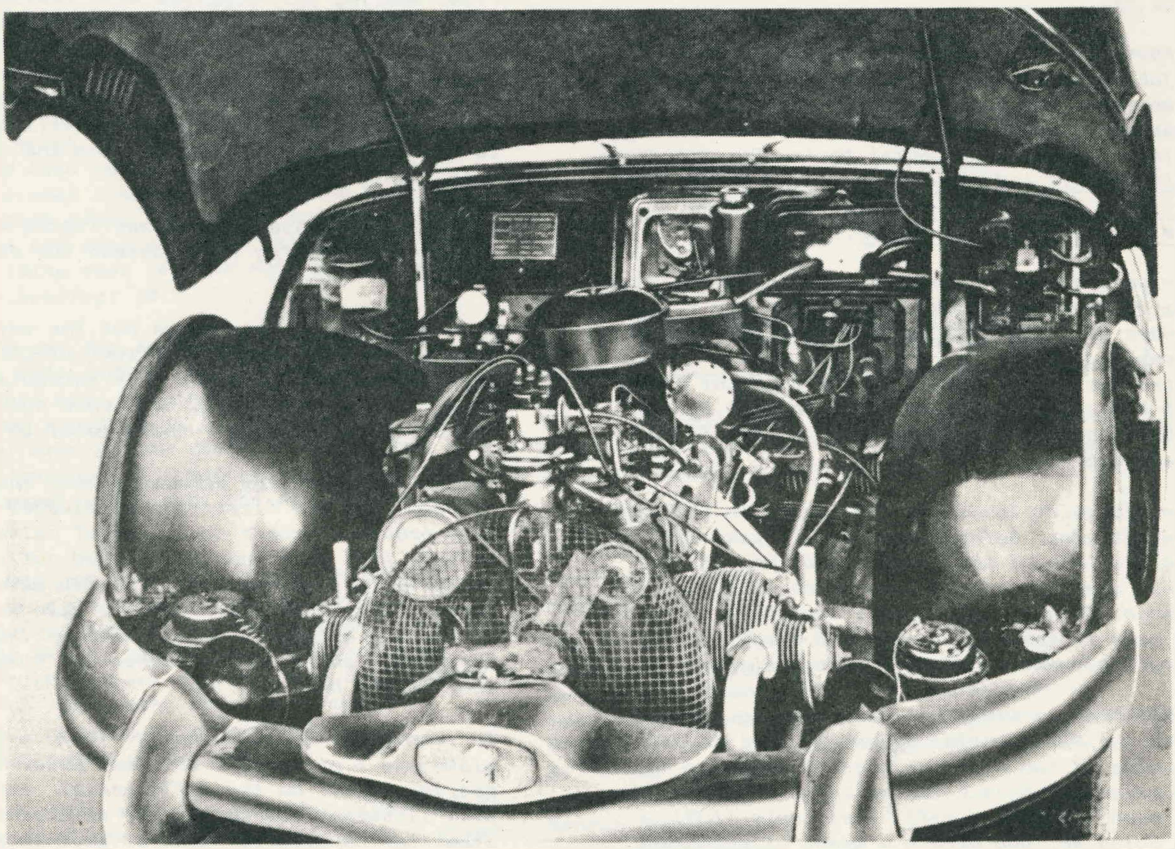
There is a satisfactory degree of passenger space in both front and rear compartments, although the head-room in the rear is somewhat limited for a tall passenger. The doors provide easy access to both compartments, although the arrangement of the seat makes it a little difficult to get out of the back of the car, yet the seat itself is very comfortable. The large glass area provides an exceptionally good all-round view for the rear-seat passengers.

As the car is air-cooled, a special type of heater is used. This consists of a cylindrical unit mounted in front of the bulkhead. It is supplied with fuel from the main tank and contains a circulating fan which is controlled by a thermostatically operated switch. During the bitterly cold weather at the time of the test the heater provided a noticeable amount of warmth for town driving and low-speed cruising, but not sufficient when the car was driven fast.

No ashtrays were provided on the car submitted for test; there are two interior lights on each side of the roof and a mirror on the back of the passenger's sun vizor. There is a parcel tray below the facia partially enclosed at the front to form three lockers, and a large tray behind the rear seat. The luggage locker is particularly large and is a useful shape free from projections which might damage suitcases. It is also provided with a gutter to prevent water entering if it is opened in the wet.

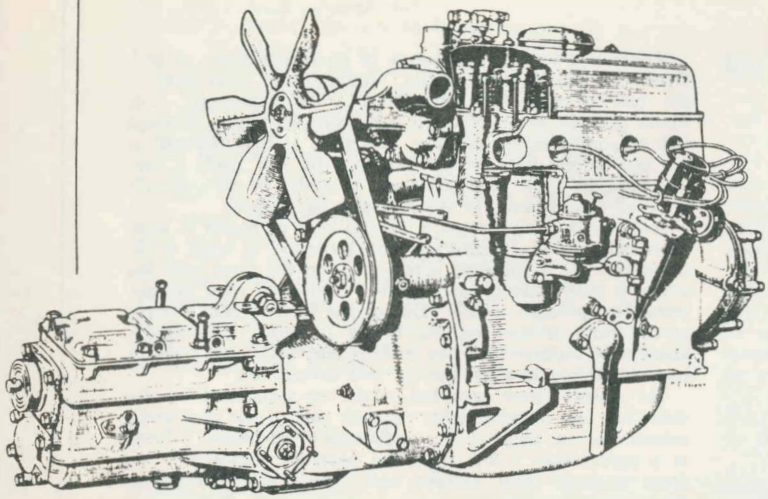
The double-dip head lamps have an adequate range for fast night driving and provide a very useful spread of light which illuminates the full width of a wide road when in the dipped position. The flat-twin engine, in unit with the transmission, is accessible for routine maintenance, and it is a simple matter to remove the complete front assembly, which is mounted on a tubular cross-member so that engine, transmission, front suspension and steering can be wheeled away as a unit for major servicing. Twenty grease nipples require attention at intervals of 3,000 miles, and no starting handle is fitted.

This detailed photograph shows the original underbonnet layout and engine of the Dyna 54. The bonnet, which comprises the front section of the body panels, is hinged to the scuttle. This arrangement provides very good accessibility to the engine for routine maintenance. The ignition distributor is placed high up towards the front of the engine and in front of the down-draught carburettor. The battery is in front of the scuttle towards the right-hand side of the engine compartment (viewed from the driving seat) and behind the air cleaner. A wire guard encloses the fan.



GEARBOX REPAIRS

TRACTION AVANT FOUR CYLINDER



The three-gear gearbox on the Citroen is mounted ahead of the front wheel centre as clearly shown in this drawing, the drive being taken over the crown wheel and pinion by an extension shaft.

Anyone who owns a Traction Avant (T.A.) will be well aware that there is always an abundance of mechanical work to be done on them. I feel many people may be put off doing much of this work themselves, for when turning to the workshop manual they find instructions which refer to the use of one special tool after another.

Well, one should not be daunted! I had the same experience myself some seventeen years ago, and to this day have only the barest collection of special tools. Many repairs can be done with no more than the average hobbyist mechanic's tool kit.

Frequently, the gearbox is in need of repair, a job which can indeed be done by you. In the event that you do not possess a manual, I will lead you through the procedure in this article, using virtually no special tools. For diagrammatic details and identification of parts, dig out your copy of Front Drive Volume 9 No. 2, and turn to Pages 12 and 13.

Having drained the gearbox (72) (hitherto "the box"), detach it from the bell housing (73) and remove box from vehicle. Remove the cover (64). Generally, there is little wear on its components. The thrust points on the selector forks (55 &57) may need to be built up with bronze and refaced if a substitute component is not available.

The gearshift lockshaft (28) wears in the ball contact area. Before removing it, take note of the position of the circlip and cup (26) for there are two grooves into which they may be placed. As a result, a worn lockshaft may still be used if the clip was in the first groove, simply by putting it in the second groove.

Drive flanges (105) are more readily removed with the differential assembly still in situ. Spacing of the bolts on these flanges is not equidistant. Select two bolts on a narrow edge of each flange and refit their nuts (109). In doing so, you create a means of anchorage for a large screwdriver which you lay diagonally between these two bolts. This provides something to pull against when undoing the output shaft nut (108). Repeat on the other output shaft. If you utilize the two bolts on the broad side of the flange to anchor your screwdriver, you will obstruct the fitting of a socket onto nut 108.

Remove mainshaft and layshaft front bearing covers (1 & 2), also differential bearing caps (110) and diffential assembly (94/98 etc). Engage synchromesh ring (19) with second speed idler gear (35), also first/reverse sliding gear (8) with reverse idler gear (92). This will lock up the box, enabling removal of the crank dog (3) and the pinion nut (4).

The configuration of the crankdog prevents the use of a socket for its removal. A tube or ring spanner of 36 mm or 13/16 whitworth will therefore be required.

The next step will require the use of a drift. I recommend a 30 cm length of approximately seven mm diameter mild steel rod. This is soft enough to yield against the hardened steel of the bearings, yet harder than bronze and less likely to chip and deposit unwanted metal debris within the bearings.

Having removed the rearmost of the mainshaft circlips (7), rear bearing(s) (87) [or(88)] and front bearing (83) complete with housing (5) may now be drifted out, thereby allowing removal of the mainshaft. Normally, bearing 87 comprises two bearing separated by a washer (113). Therefore, if when drifting the bearings out, they suddenly come to a halt, it will be due to the washer having dropped into the rear circlip groove.

On occasion I have found boxes fitted with a single rear bearing (88) instead the double set (87).

Undo setscrew (9) and knock out the reverse gear shaft (10) toward the front of the box, carrying with it plug 68. When extracting the reverse idler gear (92), take care not to lose the thrust balls (90) - these total 26 in all.

Insert a screwdriver between second speed pinion (11) and the first/reverse cluster (12). This provides access to a pair of collets or collars (13) which can be flicked out using a narrow-bladed screwdriver. You may have to rotate the pinion shaft (14) to gain access to the gap between the two collets. This done, the pinion shaft can be pushed out toward the rear of the box.

To remove the roller bearing (15), a support plate and a press will be great help. The Timken bearings (101) on the differential assembly will likewise require the use of a press. Both items can usually be found at your local garage, and if you do the work yourself, there is no charge as a rule.

If the bearings are not going back into the box, one can remove them with a little leverage and impact. The Timken bearing on the crown wheel side of the differential can be readily prised off using two stout screwdrivers - preferably of equal length - with some form of packing to provide a fulcrum between each screwdriver and the back of the crown wheel. The other Timken and the roller bearing can be tapped off by working around their circumference with each tap.

All bearings in a T.A. box stand up very well to the many miles which they accrue. They can usually be refitted, but always check the races for tracking and replace if need be. If fitting a new crown wheel and pinion, the three aforementioned bearings (15, 101/102 x2) should be replaced, regardless of their condition.

In order to remove the second speed idler (35) from the main shaft, a very small fine-bladed screwdriver will be needed to depress the plunger and spring (20). While the spring is fully depressed, the retaining washer (21) must be rotated until its spline aligns with that of the main shaft. Now ease the second speed idler gear (35) outward until you can fit a screwdriver between the gear and the washer to prise it off. Do not attempt to carry the washer completely off with the gear, as the plunger will foul in the oil groove formed internally in the bronze bush (86) inside the gear. At the least, the fouling would damage the bush. Sometimes two half-length bushes will be found.

In most cases, it will be necessary to replace this bush as it is very prone to wear. The journal on which the bush runs also wears. An under-sized bush cannot be fitted directly to offset this wear since an under-sized bush would not then clear the unworn splined section of shaft to the rear where it carries the first/reverse sliding gear (8) and runs in the mainshaft rear bearings (87).

Many people opt for fitting a standard sized bush which will indeed reduce the free play. However, this will not prevent the gear from canting over longitudinally to some extent if the journal area of the shaft is worn. Some hold the view that this matters little, as the excess movement only makes the box a little noisier.

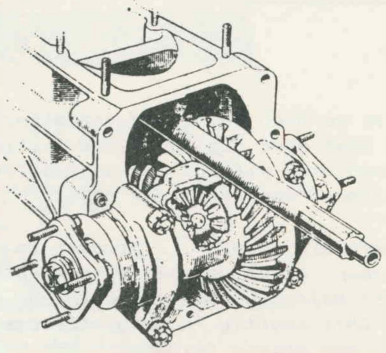
What they may not have considered though is why it is noisier! Simply, the noise is due to the gear canting. This creates point contact at the gear teeth, rather than full surface contact. Point contact creates very high local pressures on the teeth, which surely must explain the comparative scarcity of good second speed idler gears (!).

If your T.A. only hits the road for club outings, I dare say that you will opt for fitting a standard bush and leaving it at that. Those like me who are everyday T.A. addicts must look to doing a top job. The most turned-to method of rectification is that of having the journal area of the shaft built up by welding and then grinding it back to size - a specialist job (!).

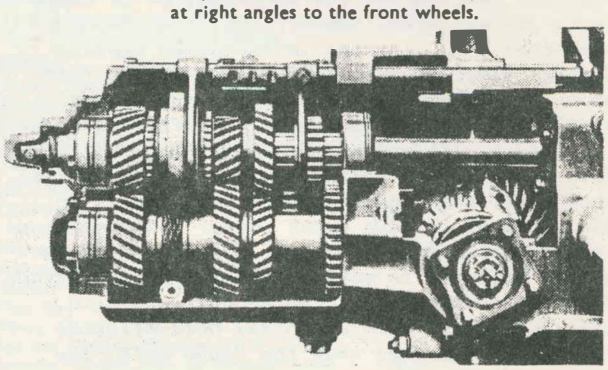
Other means of rectification are being looked into at present and will be advised on later if this is warranted.

(To be continued).

Kenn Gilbert.



The crown-wheel, bevel pinion and differential are compact and in unit with the gearbox, the bevel pinion being integral with the gearbox layshaft. Short transmission shafts run at right angles to the front wheels.



Section through the gearbox and spiral-bevel differential.

CLASSIFIEDS

For sale: 1933 10A ? Citroen Traction Arriere. Front of vehicle (power train) only, set up as a saw bench. Best offer.

Chris Evans
23 Smith St
Healesville 3777.
(059) 62 3038.

For sale: Two Light 15s. One has a very good body, having had considerable renovation work and a recent paint job, mechanically very good, needs some re-assembly work. Complete. Other car is a rather rusty parts vehicle. $1750 ONO for both.

Duncan Murray
14 Croydondale Rd,
Mooroolbark 3128.
(03) 726 7566.

THREADS BARED

GENERAL

There are so many types and varieties of screw-threads that even the so-called initiated can become confused without the appropriate measuring equipment and reference charts.

In this article however, I propose to deal with and perhaps clear up some misconceptions about the three main types of screw-thread commonly used in this country -namely, the common British American and metric threads.

To introduce this topic, we have to go back a bit in history, in fact to about the middle of the 19th century for the introduction of standards. Screw-threads however, go back much further than this, in fact to the Roman Empire. At this time, it was discovered that the form of a screw could be created by impressing a suitable shape into sand and then filling the impression with molten metal (casting). If the form was a wooden cylinder with a raised spiral around it, then the resulting casting was in the shape of a crude metal screw. This technique worked for external threads (male), but could not be employed to make internal (female) treads in nuts. Consequently, the technique was to cast a "collar" with a central hole slightly smaller in diameter than the crude bolt. The collar was split on one side, wedged open slightly, and passed over the crude "thread". A sand and water "cutting medium" was applied and the developing "nut" (the collar) was slowly rotated around the male thread, the wedge being slowly moved out as an internal thread was formed by abrasion inside the nut. Eventually, the nut or collar could wind more or less "smoothly" along the screw. Now you know why the Romans used slave labour! Obviously, no two threads were the same, so that interchangeability was a luxury yet to come.

This lack of interchangeability continued up until the middle of the 19th century when just about every man and his dog was building machine tools. Each of these manufacturers produced screw-threads to his own ideas (though not quite by the same methods as the ancient Romans - some things had advanced!). Each also had his own ideas about the size of bolt heads and nuts. There was no interchangeability of bolts, nuts or spanners.

BRITISH THREADS

The situation became so intolerable that a gentleman named Whitworth was given the task of producing a standard sizing for these components. This is what he came up with.

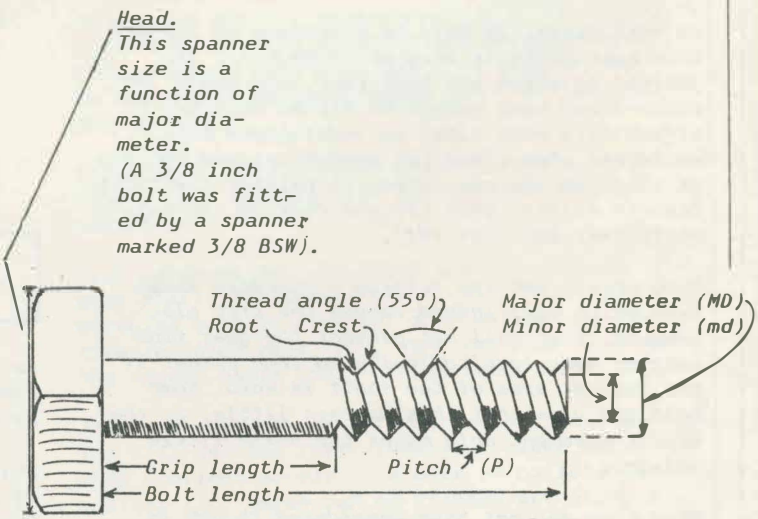
The "Whitworth Thread", as it was called, was adopted throughout British industry, and was quite satisfactory up until the turn of the century. By then, the motorcar was being developed. Coarse threads have one major disadvantage - they tend to loosen with vibration, and of course early motorcars were not lacking in this respect, either from mechanical sources or from the less than perfect road surfaces of the day. Consequently, bits fell off with monotonous regularity!

This tendency to shed components led to the development of a finer thread. This was to be the BSF (British Standard Fine) which was based on the whitworth thread form but having a finer pitch and thus a greater T.P.I. (TPI). The head too was a little smaller, but still based on a function of the major diameter. However it was down one size relative to whitworth, which is why a British bolt with a 3/8 inch major diameter is fitted by a spanner marked 5/16 BSW (British Standard Whitworth). Hang on a minute, you say. Both 3/8 BSW and 3/8 BSF bolts nowadays take a 5/16 BSW spanner. Yes, they do!

It was decided during the 1914-1918 war that the original BSW was a little larger than necessary, and as an austerity measure, BSW heads and nuts were reduced to the same size as BSF i.e. the "austerity size" which has remained to this day (a little less material, a little cheaper to produce).

(To be continued).

Jack Weaver.



Pitch: The distance from a point on one thread to an identical point on the next thread e.g. crest-to-crest.

Threads per inch: All thread forms except metric are expressed in this unit (TPI, T.P.I.).

Set screw: A bolt with thread right up to thehead.

Stud: A threaded shaft without a head.

Shoulder bolt: Bolt with diameter of grip length greater than MD.

M.M. DATA SHEET

Servicing the CITROEN SIX (1948-52)

ENGINE DATA.

No. of Cylinders: 6 (Cylinder barrels detachable).
Treasury Rating: 22.6 h.p.
C.C.: 2,867.
B.H.P.: 76 at 3,700 r.p.m.
Bore: 78 m.m.
Stroke: 100 mm.
Compression Ratio: 6.2 to 1.
System of Cooling: Impellor assisted thermo-syphon.
1st O.S. Bore:) Replacement barrels and
Max. O.S. for boring:) pistons of standard bore.
Firing Order: 1—4—2—6—3—5.
Piston Clearance Top: —
Piston Clearance Bottom: 0.10 mm.—0.13 mm.
Ring Gap: 0.25 mm.; Compression, 0.20 m.m.; scraper.
No. of Compression Rings: 2.
Width of Compression Rings: 2.5 mm.
No. of Oil Rings: 1 oil, 1 scraper.
Width of Oil Rings: 4 mm.
Oil Pressure, lb. sq. in.: 20 to 30 at 20 m.p.h. top gear.
Gudgeon Pin Type: Floating (retained by circlips).
Fit in Piston: Light push fit at 500C. min.
Fit in Con Rod: 0.0004 in. min., 0.008 in. max.
Crankpin Diameter (standard): 48 mm.
Type of Bearing—Con. Rod: White Metal.
No. of Crankshaft Bearings: 4.
Type of Bearings—Main: Bronze-lined white metal.
Valve Timing Markings: Alignment of hole in flywheel with hole in casing.
Tappet Type: Pot type, operating push rods and O.H. valves.
Inlet Valve Clearance for Timing: 0.006 in. hot.
Inlet Valve Opens—Degrees: 3 B.T.D.C.
Inlet Valve Working Clearance: 0.006 in. hot.
Exhaust Valve Working Clearance: 0.008 in. hot.
Are guides removable? Yes.
Carburetter—Make and Type: Solex FFIAP2.
Choke Setting: 24; Corrector, 280.
Main Setting: 120 (Float weight, 21.5 grammes).
Starter Setting: Petrol, 120; Air, 5.3.
Idling Setting: 45; Air, 120.
Pump Setting: 45; Needle, 2.5.

CLUTCH AND GEARBOX.

Clutch Type: Twin dry plate.
Type of Facing: Moulded Ferodo.
Gear Ratios: Top, 3.875 (with synchromesh); third, —; second, 5.62 (with synchromesh); first, 13.24; reverse, 15.88.

FRONT AXLE AND STEERING Etc.

Camber: 1 degree plus/minus 0 degrees 30 ft.
Caster angle: O degrees plus/minus 0 degrees 15 ft.
Toe-in: Toe-out 0 mm.-2 mm.
Kingpin Inclination: —
Track: 4 ft. 10½ in.
Turning Circle: 45 ft. 3 in.
Wheelbase: 10 ft. 1½ in.
Tyre Size and Pressures: 185 x 400 Michelin Broadbase; 20 lb. front; 22 lb. rear.
Type of Axle: Front wheel drive.
Type of Drive: Spiral bevel.
Ratio or No. of Teeth: 31 x 8.
Adjustment: Shim and ring nut.
Lash—in.: 0.008 in.

BRAKES.

Type: Lockheed hydraulic—two leading shoes on front.
Type of Linings: Moulded Ferodo.

SPRINGS.

Type: Torsion bars, front and rear.
Length—Front: —) (Action of Torsion Bars is
Width—Front —) checked by Hydraulic Dampers)
Rear Axle Camber: 1 degree plus or minus 0 deg. 30 ft.
Rear Axle Caster: 0 to 1 mm.

ELECTRICAL.

Distributor Rotation: Anti-clockwise from driving end of distributor.
Manual Advance:) Total
Automatic Advance: Centrifugal) 29
Breaker Gap: 0.012 in.-0.015 in.
Plug Gap: 0.025 in.
Firing Order: 1—4—2—6—3—5.
Ignition Timing—Degrees 6 B.T.D.C.
Ignition Timing—No. of flywheel teeth: — (Note.—By alignment of markings on sprockets).
Charging System: Lucas C.V.C. Dynamo.
Battery—Capacity, Make and Type: 12 Volt, 57 amp. Exide 6XCZ9H.
Battery Earth—Positive or Negative: Positive.

CAPACITIES.

Sump—Pints: 12½.
Gearbox—Pints: 5.
Cooling System—Pints: 12.
Radiator hose (top) length. Int. diam.: Moulded.
Radiator hose (bottom) length. Int. diam.: Moulded.
Petrol—Gallons: 15.

GENERAL DIMENSIONS.

Overall Length: 15 ft. 11 in.
Overall Height: 5 ft. 1 in.
Overall Width: 5 ft. 10 in.
Ground Clearance: 7 in.
Total Weight: 27¼ cwt.

NEW MEMBERS

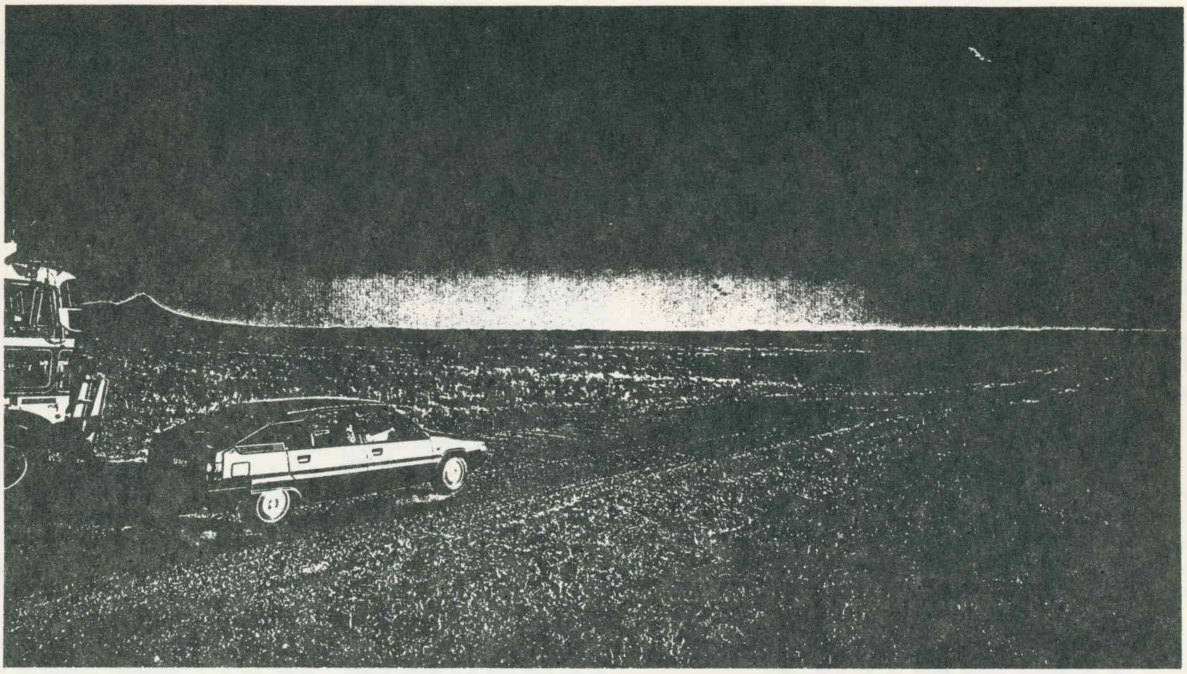
Mark Sertori (Welcome)
5 Percy St
Portland 3305.
(055) 232 604.
1954 Light 15.

Brian & Esther Wade (New address)
8 Lawson Rd
Ingleburn Milpo 2174.
(02) 605 7883.

CLASSIFIEDS CONTINUED

For sale: Six tyres and tubes, 5.25 x 16 cross ply, brand new, perfect, 5 Dunlop, 1 Olympic. Will separate. Tyre/tube set: $85 each. (03) 874 1093.

Wanted: Bumper bar for late Light 15. Mark Sertori. (055) 232 604.



CITROEN BX 16TRS HATCHBACK.

Technical Specifications

Engine: 1.6L 4-cyl in-line
Power: 68Kw @ 6000rpm
Torque: 131Nm @ 3500rpm
Transmission: 4-speed Automatic/5-speed Manual
Fuel Consumption: Urban Cycle 8.9L/100km, 5.5L/100km (at 90km/h), 7L/100km (at 120km/h)
Fuel Tank Capacity: 52 litres
Kerb Weight: 950/970kg
Length: 4230mm Width: 1660mm
Turning Circle: 10.1m
Brakes: 4 disc

Standard Equipment Specification

Air Conditioning
AM/FM Radio Cassette (with 3 speakers + aerial)
Alloy Wheels (auto only)
Central Locking (including hatch)
Comprehensive Dashboard Warning System
Diagnostic Socket
Electric Front/Rear Windows
Front Headrests
Folding Rear Seat
Four Wheel Disc Brakes
Heated Rear Window
Hydropneumatic Suspension
Halogen Headlamps
Low Profile Michelin MXL Tyres
Laminated Windscreen
Inertia Reel Front & Rear Seat Belts
Metallic Paint (option)
Power Steering
Quartz Clock
Rear Blinds
Rear Window Wiper & Washer
Tachometer
Tweed Trim Upholstery

Base Price (Retail)

Manual $25,500.* Auto $27,500.*

Options

Varnished paint	$250
Varnished Metallic paint	$450

*Recommended Retail Price as at 1/1/86. Does not include Dealer and Government charges.

CITROEN BX 19GT HATCHBACK.

Technical Specifications

Engine: 1.9L 4-cyl in-line
Power: 75Kw @ 5600rpm
Torque: 158Nm @ 3000rpm
Transmission: 5-speed Manual
Fuel Consumption: Urban Cycle 9.2L/100km, 5.8L/100km (at 90km/h), 7.5L/100km (at 120km/h)
Fuel Tank Capacity: 52 litres
Kerb Weight: 1000kg
Length: 4230mm Width: 1660mm
Turning Circle: 10.3m
Brakes: 4 disc

Equipment Specification

Air Conditioning
AM/FM Radio Cassette (with 5 speakers + aerial)
Alloy Wheels
Central Locking (including hatch)
Comprehensive Dashboard Warning System
Diagnostic Socket
Driving lamps
Electric Front/Rear Windows
Front Headrests
Folding Rear Seat
Four Wheel Disc Brakes
Heated Rear Window
Hydropneumatic Suspension
Halogen Headlamps
Inertia Reel Front & Rear Seat Belts
Laminated Windscreen
Low Profile Michelin MXV Tyres
Metallic Paint (option)
Power Steering
Quartz Clock
Rear Blinds
Rear Window Wiper & Washer
Tachometer
Velour Trim Upholstery
Rear Spoiler

Base Price (Retail)

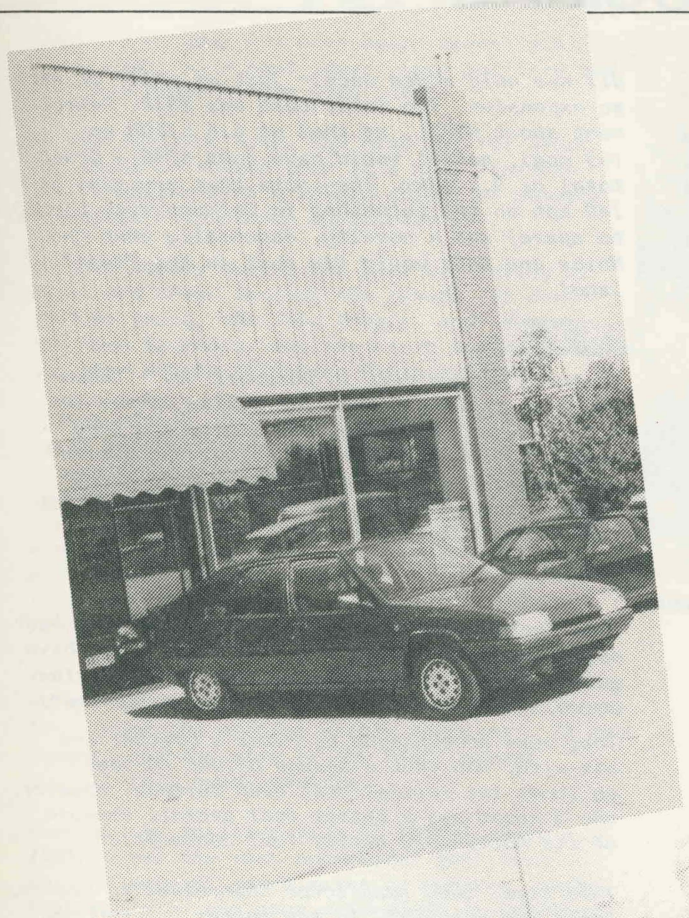
$28,500*

Options

Varnished paint	$250
Varnished Metallic paint	$450

CITROËN BX.

IMPRESSIONS COUNT.

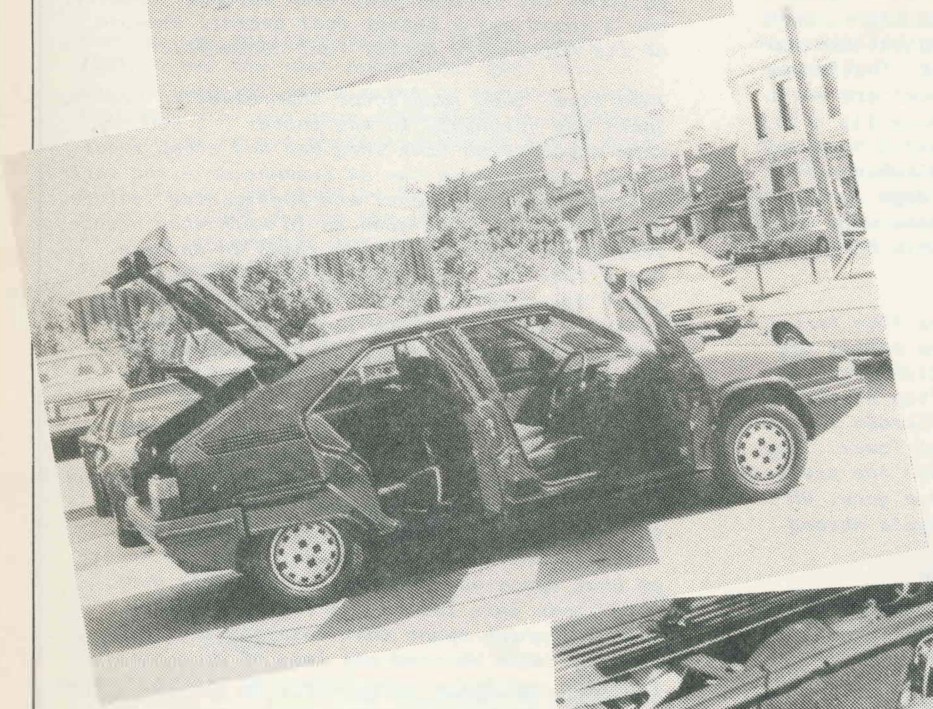


Yes, the Citroen BX is here. I called into A.O. Dutton's in Richmond (Melb.) recently and sure enough, there they were. They had only arrived the previous Friday (Feb. 7th). I saw a simply stunning 19GT in a deep burgundy, and two 16TRSs in, one silver, one fawn. To me, they are simply magnificent motor cars, beautiful and absolutely completely equipped. Somehow, they look streets ahead in impact of the bright red just-released example I saw at Quai Andre Citroen three years ago. They are bound to sell well, despite the rather daunting local price (see specifications in advert).

Eighty-six are booked for Victoria out of the present shipment of 350. According to Geoff Dutton, a further 500 are expected for 1986. Diesels and station wagons are being considered for the future.

However, futuristic cars may not be everyone's cup-of-tea. One club member, looking at a BX brochure, said: "I think space-ships belong in space. Motorcars should look like motorcars. I've never liked any of the modern Citroens". Obviously a Traction man and likely to remain so. Happily, CCOCA can accomodate a great diversity of views and tastes.

Bill Graham.



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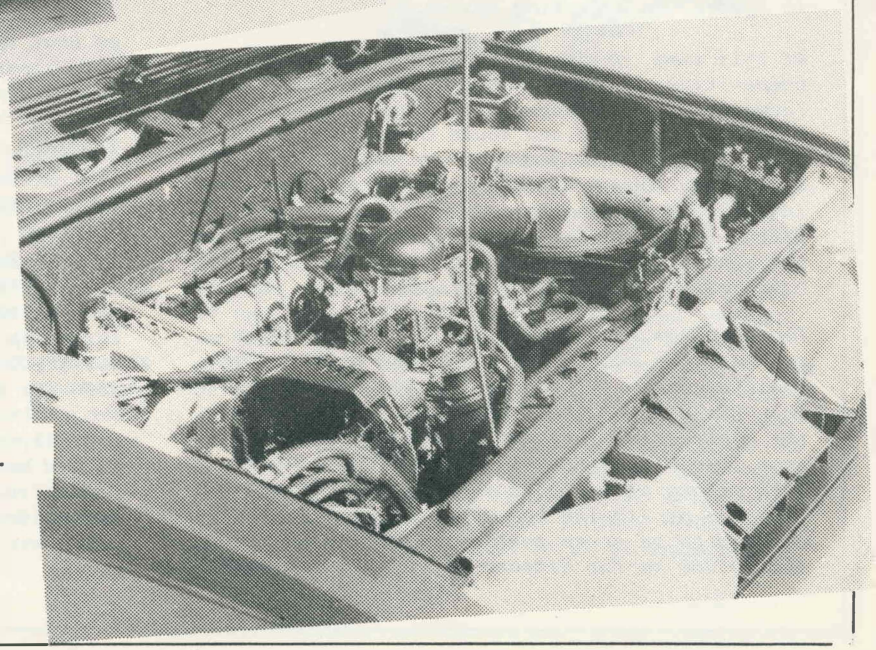


BX 19GT on display at A.O. Dutton's.

BX TOURING

Jane prepares lunch in Alsace.

At last the pulse-stirring Citroën BX is in Australia - some 3½ years after it was first put on public view in Paris in 1982.

Aussie enthusiasts of the marque could be excused for thinking they are the last on Earth to be given the BX. Obviously then, it is unusual to find Australians with any but the most fleeting of impressions of the car. That's why Jane and Peter McKenzie's experiences are worth relating.

Jane and Peter, from the Melbourne suburb of Cheltenham, have now had two holidays in Europe, both times driving BXs. They notched up a total of 25 000 km, and are now definitely BX enthusiasts.

On their first tour, the McKenzies flew to London in March 1984, took a free hop across the Channel to Paris courtesy of British Air, and collected their BX16TRS 5-speed (top of the line) from the export division, Citroën TT, in the Champs de Mars near the Eiffel Tower. They had to settle for a fawn one, since the preferred high-visibility yellow ones were gone. On this trip, they booked through Wheels Abroad in Sydney, on a leasing system.

At this time, prices from Renault were very competitive, but having tried the Citroën (because it was cheaper (!)), they were irretrievably hooked and would think of nothing else now (Bad luck Regie !). On this first trip, they covered 17 000 km in 60 days, spanning most of Western Europe except Scandinavia. Often, they stayed in old monastries and castles now set up very nicely and cheaply for tourists, especially in Spain and Portugal.

The features they particularly liked on this car were the superb seats (no bad backs), the powerful brakes ("too good"), the precise handling, the grip of the Michelin 165 (70) x 14s, the central locking, the tremendous luggage room (two big suitcases on top of each other with plenty of space to spare), and the economy (40+ mpg at 110-120 kph where possible). The car had to be given routine servicing at 1000 and 10 000 km for Citroen to buy the car back.

Oil was only added once - just as well- it was so expensive. The lease cost was $830. Petrol cost about 65¢/L, so that at 6.6 L/100 km (43 mpg), petrol would have cost $730 - $1560 total or 9.2 ¢/km. They note that cruising at 140 kph on the autobahns in Germany (with plenty to spare) was a novelty, especially when the Mercs and BMWs would fly past in the "fast" lane!

On their second trip in December '85 - January '86, the falling Australian dollar caused the McKenzies to go down market a bit, and they booked a BX14RE 5-speed in white. The desired red colour (to stand out in the anticipated snow - thorough aren't they) wasn't available. The 14 was selected as the most economical.

They leased through Martin's Self-Drive in Sydney (though it turned out that they could have gotten the same deal through Duttons in Melbourne, which would have been more convenient).

They were accompanied by Peter's brother and his wife, who took a second BX14RE (4-speed) to lower the initial cost even further. However, the 5-speed was a better deal overall because of its noticeably better fuel consumption.

This time, they restricted themselves to France, Spain and Portugal. In the latter country, they encountered some very bad and steep roads which highlighted the BX suspension - the variable height was a novel and appreciated feature. At times, they were down to 10 km/h when negotiating ice and snow on the roads in Andorra. Peter felt the road grip in the 14RE was down a bit since it was fitted with the narrower 145 x 14 tyres, and the resulting apprehension was something of a minor distraction from the rugged beauty of the Iberian Peninsula.

Parking near Valencia one day, they ignored the offer of a friendly local to mind the cars (for a trifling sum) and returned to find the second car, which had had some gear left visible on the back seat, had been burgled (coincidence?) - moral: Leave all your gear inside the covered boot space and pay the locals their dues. Both these cars lacked the central locking feature, which meant that ensuring that all openings were secured was less of an automatic function and hence more likely to be overlooked. They also lacked headrests which was more tiring for the passengers in particular.

On the second trip, Jane and Peter covered 8000 km in 32 days, averaging 40-45 mpg depending on conditions which were often not ideal. On this trip, no oil was added. The leasing cost was $1200 and petrol cost about $1/L - say $530 for petrol, $1730 total or about 22¢/km.

Overall, the McKenzies are very happy with the BX and would like to be able to afford one in Australia. "Next time" to Europe, they would probably try a diesel BX.

Bill Graham.

PRESIDENT'S REPORT

The 1985/86 year has once again drawn to a close and , asin past years, both positive and negative aspects have been seen.

On the positive side, the club has for about the third or fourth year in a row, finished the 12 months with a record number of members. This year, the number approached 130.

Several events during the year are worthy of note, and these include the Echuca '85 Austraction rally, the July Noggin and Natter, the Como Concours, and the First Annual Classic Car show at the Melbourne Exhibition Hall.

Unfortunately, most other events during the year, especially Nunawading meetings and the European Motoring Show were disappointing in the lack of support shown by members. Although the European Day was poorly supported by CCOCA members, with only five classic vehicles in attendance, Citroens (with excellent support from the CCCV) managed to display the most vehicles of any one marque - 32 in all.

In this light, a questionnaire has been prepared by the Committee for country Victorian members (whom the problem mainly concerns). If you support nothing else in the club, please support this questionnaire.

Back on the positive side of things again - 1985/86 was the most successful year ever for the sale of spare parts to members. Maybe that explains the poor attendance at meetings - everyone is out there working on their cars!

Front Drive continued to be the main focal point of CCOCA during the year for our ever faithful interstate and overseas members, with several contributions coming in from these members for publication. The size of Front Drive has grown over the year with an extra two pages or so in most editions, so that you, the members, get more for your subscriptions.

Whilst on the subject of subscriptions, you would have noticed that CCOCA subs. have remained ay $20-00 for this year. We are very proud at having kept the costs down for the lasy nine years. I wonder how many other organizations could claim to have not increased their prices for almost a decade. Next year, they may have to rise, but that decision will not have to be made for another 12 months.

The 1986/87 club year will see something which has not been seen for the last five years - a new President. I have decided because of personal and Army pressures not to stand for committee election this year. I do feel that after five years as President and nine years on the Committee, it is time to get some new ideas going.

As an outgoing statement, I would like to thank all those present and past committee members who have helped me through good times and bad over the last nine years, and helped make CCOCA the well respected club that it is, both nationally and internationally.

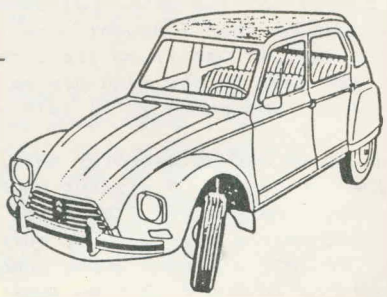
I am sure the incoming President and Committe will continue to carry the club through to even bigger and times ahead.
Thanks to Peter Simmenauer, Ted Cross, Peter Boyle, Russell Wade, Bill Graham and Mark McKibbin for their support over the last 12 months.

Let's all work together and help make CCOCA the best Citroen club on this planet, not just the best in Australia. As has been said before: "Ask not what your club can do for you. Ask what you can do for your club".

John Couche.

*

DEVILISH



THE DEVIL WAGON

Automania, a British series, recently appeared on Australian television. It examines the effects of the motor-car, possibly the greatest agent of social change experienced by mankind. However, there can be no question that transportation before the motor-car also had a strong impact, not all of it pleasant, especially in the cities. For example, it was said in the series that at the height of the horse transport era, 5000 tonnes of horse manure were deposited daily on the streets of New York, together with a similarly large volume of urine - perhaps the odd super tanker full? And the image of all the street-cleaning lads waiting at either side of London's Tower Bridge, the accumulated manure on the lifting spans sliding towards them in a steaming wave. Seems the motor-car is not so bad a polluter after all?

The first of the series, titled "The Devil Wagon", featured a delightfully alert French lady recalling the world before the arrival of the motor-car, and the joys and hazards of driving during last century. The 102-year old Countess Frochet, she was interviewed while sitting at the wheel of her cream Citroën Dyane outside her chateau in the French country-side. Perhaps the oldest driver in the world, she recalled her first view of a motor-car, when her uncle used to be driven down from Paris by his chauffer. Of course the chauffer was more than a social affectation. He was one of the few people around who understood the new beasts. And of course, they stayed overnight before commencing the journey home.
Worth catching the series if it is repeated.

W.G.

* See also: Membership and Library Report. - back of rear cover.

LETTERS

86 Burnet Avenue,
Burpham, Guildford,
Surrey, G.U.I.I.Y.F.,
ENGLAND.
26 January, 1986.

Dear Bill and family,

It seems such a long time since I wrote that I feel that I must owe you a letter.

Firstly, it is still early enough in this year to wish you all a "Very Happy New Year". I hope you all enjoyed Christmas in blazing sunshine? We shivered a little and are still doing so.

I had a nice book about the 1984 rally at Knebworth sent to me by Olivier de Serres. It is on sale here, but he sent me an autographed copy which was greatly appreciated. He is interested also in some of the castings I had made of the (Big 15) Roadster windscreen pillars. In May, we hope to meet up to join in the run from Paris to Monte Carlo to celebrate the 50th year of the epic run by Francois Lecot. I am going to take the coupe, with Edna coming along.

They say about 100 cars are to take part - it will make up for the Paris-moscow run which I wasn't able to make. John and Josie from B.W.B. are going as well in the now-famous Commerciale. This will be its third long run in two years. Paris to North Cape also without trouble last year. My car has been living in the luxury of a dealer's showroom since last May, so I will give it a good checkover in March-April.

I know of your interest in roadsters. Some months ago, 36 CTR was sold at auction in London for £12 000, and yet a few weeks later, another car (an almost unknown roadster) only fetched £7 500 to an as yet mystery buyer. I'll bet it was the other car owned by the Dr. Bannatyne that I bought mine from. It did say that it had lived its life in Scotland. The lads in the club are waiting for it to surface, and where it'll turn up.

I went up to see my daughter earlier this month and low and behold, a visitor came whilst we were away - Mark Navin [there you are, Mark. You can't make a move without word filtering home]. He left a London phone number and said he would be in touch, but no luck - guess it must have been a "Flying Visit" with maybe a short stopover in England. I figure it must be six years since we last saw him. I take it you know him? [Of course]. I do seriously hope that we can re-visit. There are so many things next year. I understand the next International is to be in Germany. No date known yet. I would like it be next winter time (our's!). I expect it'll be more positive once we've moved and are sorted out.

Barry is getting married in June. So far, four Tractions are allocated to carry wedding guests. Because of the complications, they've got to get permission from the Archbishop of Canterbury to marry in a small church. Things aren't always easy in our family. In addition, its the same weekend as our club rally - that'll be the second we've missed. Last year it was a christening. The local radio disc jockey is a customer of Barry's, so it'll be well known in our part of Surrey. You can bet if the first is a boy, he'll be brainwashed, even down to Chevrons on the nappies!!

Finally, I had the pleasure of receiving "Citronews" from my friend Steve Le Roux, chairman of the South African Club. How the power of the marque extends around the globe. The enthusiasm for Citroen cars is as great there as anywhere else in the world. If at all possible, I'll take a trip there via Australia on my way back home.

We have our club dinner/dance on February 15-16 (a sell-out as usual). We go to a hotel in Bournemouth on St. Valentine's Day to get an early start. Real value for money at £38 for all meals for the weekend break. Meet up with old friends, a jar or two just to start off with to say the least!! A weekend which is keenly looked forward to once a year.

Well Bill, I've got to the end of my present news. Very good wishes to yourself and family and to all the lads in the club.

Cheerio for now,

Fred Annells.

[It's always great to hear from the UK via Fred. Details of the Paris-Monte Carlo Rally appear in November Floating Power - if I can find space in this issue, I'll reprint the schedule. Also notice that Fred has been made a life-member of the Traction Owners Club. Very well deserved and congratulations from Downunder.

W.G.]

[There have been a couple of brief but very welcome notes from Olivier de Serres to John Couche and myself. As reported some time ago, Olivier has been seeking materials from Australia (or anywhere) on Ds to follow on fron his magnificent book on Tractions. Now his publisher has asked him to suspend that book and to get onto one on all Citroens!! So, again, if you can help with any Citroen information for Australia, please let us know in the Committee.

W.G.]

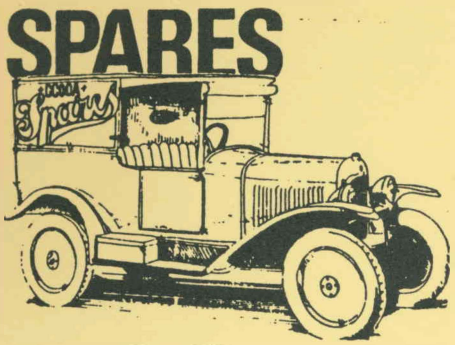
PAST RALLIES

Past rallies have not been matters of great moment in recent days, what with general lassitude sweeping over members in the Festive Season, and there being a sparcity of exciting club rallies. However, the Association of Motoring Clubs European Day at Flemington Racecourse was worthy of better club support and should be kept well in mind for later years (see President's Report). By the time you receive this issue, the Annual Dinner at the home of David and Janet Greis will be a recent but pleasant memory. Don't forget the AGM on March 26th.

W.G.

Footnote: Fred's deep blue coupe, ENE 442, which he will drive to Monte Carlo, features on several auto and parts calendars this year. Got yours?

SPARES



SPARE PARTS, contact:
Russell WADE
Phone 9 am to 7 pm No Sundays
(03-5703486)
Order Forms take precedent over phone calls.

HOURS: 9 AM to 7 PM. MON to SAT

There has been a burst of traction rejuvenating this summer, this has led to many items running out of stock. I am waiting for more supplies from overseas but would ask any member who finds sources of parts or substitute parts to let other members into the secret through the magazine.

Silentblocks; two members have set up facilities to rejuvenate traction silentblocks. I must emphasise that you must not butcher your silentblocks when you remove them because they may not be acceptable for changeover and it will certainly cost much more to have your brutalising corrected.

6 cyl silentblocks are being done by Mel CARY. R.M.B 8382 Bairnsdale. 3875 The price is expected to be $85 per set (4 upper &4 lower) changeover. Odd sets eg lower only or damaged ones will be done by negotiation, Mel will take the entire cradle press out and refit and set up ready to go back into the car, price by negotiation, it could save you a lot of aggro. Parts should be sent to Bairnsdale Railway Station with a covering note in the post to Mel.

4 cyl silentblocks. Alan HURST. PO Box 1432 Cairns, 4870 Nth QLD. has the facilities to reco 4 cyl silentblocks, he has not indicated prices, but expects it to be quite reasonable depending on response. Contact Alan direct for further information.

Universal Joints; I have had no luck trying to track down a supply of uni joints, however a Commercial firm in Melbourne(no free advertising) has some in stock ($45 to $50 each joint) and they may still have a few factory driveshafts left (at a price). The prices seemed high a year or two ago but inflation has made them almost acceptable. The club sees no sense in stocking these items because putting a nominal markup on them would push prices even higher. Contact spare parts for more details. PS we have no idea of the size of this firms stock.

Since I have babbled on a bit I will just include a few dusty odds and ends.

Rear bumper grommets L15 $21 pair
Leather f/end b/joint covers $20 each
1 clutch thrust bearing $45
Pointed bonnet bump rubbers $1 each
Bonnet lacing 2 m per car $10.50
Front hub/brake drum puller $104
Lower ball joint extractor $61
1 set Dyanne wiper blades $15
1 2 cyl coil new $25
Late 2 cyl points $12
Late 2 cyl seat rubbers $1 each
Metal 2 cyl rear brake hoses $20

If you have a set of .020 oversise pistons in good useable condition we have 4 freshly bores liners .020 and a new set of .020 rings, 2,2.5, 4 & 4 mmwide for $100.
Also for the budget rebuild, 1 set of remettaled rods 1.890" ID $120set

CLUB SHOP

List of items unchanged. Refer to last issue.

MEMBERSHIP AND LIBRARY REPORT

Membership again increased in the Club Year 1985/86, reaching a total of 126 full and associate members, plus 76 joint members.

Distribution of the full and associate members was:

Melbourne	*61*
Victoria (rural)	*23*
NSW/ACT	*20*
Other States	*17*
Overseas	*5*

Library: This has continued to expand, although some exchange publications arrived irregularly or not at all. A selection of books and magazines has been made available for browsing and/or borrowing at all regular club meetings. Several loans have been made by mail to country and interstate members. To keep the work-load down, it is preferred that those able to should attend club meetings and borrow there.

Peter Simmenauer.