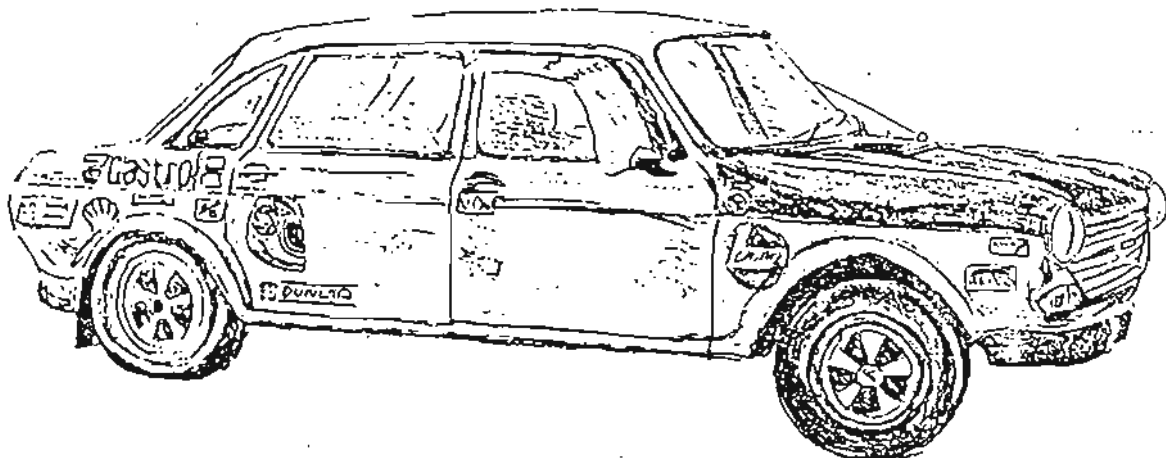


# LANDCRAB



Number 20

Canberra and District Austin 1800 Club

January 1990

During the past month we received three new members — please welcome:

Michael BARTSCH	PO Box 1369 Alice Springs NT 0870	(089) 530-269	No car at present (mechanical assistance)
Imre SZABO	3 Hilton Street Craigieburn VIC 3064	(03) 308-3332	MkII Sedan (assistance to 30km)
Ken and Paula LYLE	10 Morrison Street Maylands Perth WA 6051	(09) 271-3737	MkII Sedan Austin Princess MkI Sedan

As you can see by our new membership the club now comprises members in all mainland states — how we have grown during the past 12 months! Ken and Paula in Perth own a Princess (another first in the club) and it is the model immediately following the Landcrab in which the early models utilized the 1800 motor and, as was typical of the 'Poms', was very stylish and futuristic when released.

Ken and Paula spend much of their time researching the 1800 and its derivatives and are currently looking into reproducing: MkI lenses; MkII window winders in aluminium; interior light covers; and window racks for both models. Shortly Ken hopes to supply a complete kit, new foam, Pirelli webbing and seat patterns and is currently costing same. Whilst on the subject of seating, Mick Oates hopes to be able to get some seat covers made especially for 1800 seats and available specifically for club members at a realistic price.

Pat Farrell has sent more information on tuning the Landcrab, which should interest those members currently hotting-up their 1800s (specifically Ian Davey and Andrew Downing). Also included was an article titled *Rally Car with a Pedigree* and deals with the Kimberley. Different! This month's cover picture features a drawing of Pat's rally car in which he hopes to get printed on some T-shirts with the word Landcrab printed beneath.

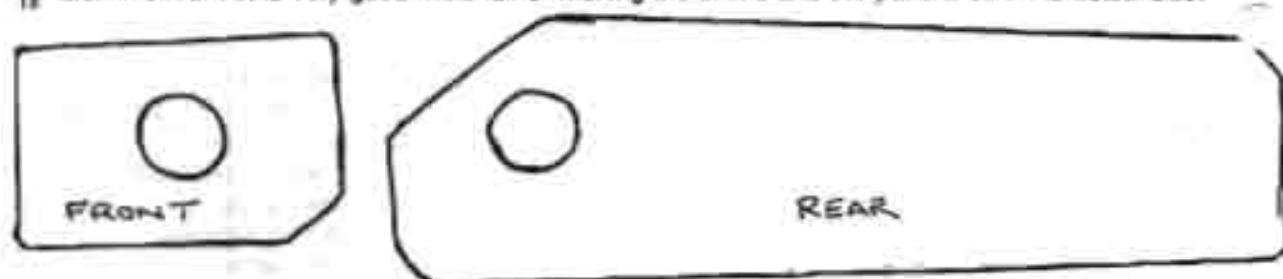
Our sister Landcrab Club in Wales recently wrote with the sad news that the indicator switches had been exported to Malta and are therefore temporarily unavailable — however Bill Fraser has promised to track down some more for us. On the brighter side, their club exhibited an immaculate-looking MkI 1800 Deluxe at this year's London Motorfair at Earls Court. It was on a stand featuring a selection of the best models which appeared at the 1964 Earls Court Motor Show. The event was covered by the BBC and a fairly well known compere by the name of Noel Edmunds who, in a televised report, picked on the poor old 1800 expressing amazement at the fact it had survived this long. He evidently had little regard for the Landcrab concluding with the view that its only real use today was on the 'banger' circuit. These comments naturally attracted much anger from our UK cousins, who voiced their outrage in a letter to the BBC. It seems the Landcrab is slagged off in the UK as well as over here.

Warwick Wright recently had exhaust problems — yes, you've guessed it — at the flexible joint behind the motor. He trekked along to Phillip Exhaust where they welded in a new stainless steel flexible piece, costing him \$40. Not bad value considering it is stainless steel which should outlast the rest of the system.

A couple of members have recently experienced broken speedometer inner cables, one where replacement lasted only a few days. For some reason they all seem to break at the lower end. When replacing a cable be sure to grease it well, preferably with molybdenum grease. Perhaps this is a good time to check your speedo cable, even if it's functioning all right.

Leslie Lenny wrote to the club and he sounds very knowledgeable regarding the Landcrab and has shared some technical information, which is reproduced here just as Les wrote it:

1. On the subject of dipstick lengths the original dipstick length was  $16\frac{3}{4}$ " in the UK it was changed to  $18\frac{11}{16}$ " but reworked in Australia to  $18\frac{1}{4}$ " in the 18AMW/UH ... series engines. Australia finally settled for  $17\frac{11}{16}$ " on the manual and  $16\frac{1}{4}$ " for the automatic. Late English autos are 16". Dimensions are from the 'MIN' mark to shoulder of handle. Any conversions should use  $17\frac{3}{16}$ " dipsticks as this was the final one.
2. There were variations in the formula for hydrolastic fluid between the UK and Australia. The firm of H.C. Sleigh (Golden Fleece) did market a fluid to the following specification: Alcohol 50%, Water 24.45%, Benimazol 0.05%, Ethylene Glycol 3%, Bo7ar 0.50%, Union Carbide HB5100 22% (this is a viscosity improver).
3. A variation on removing the steel bush in the end of the crankshaft on the automatic engine is to tap the bush with a  $\frac{1}{4}$ " SAE thread. Then with the aid of a suitable stud, a large socket, washer and nut, the bush can be extracted.
4. Many MkII sedans with Slipflex rear suspension bearings often get a bad lean in on the rear wheels. Providing the bearing is okay the correct  $\frac{1}{8}$ " camber can be restored to the wheel by inserting appropriate shims between the body and the suspension cradle. These can be inserted without depressurizing the suspension — merely slacken the four mounting studs, remove the outer two in turn to insert the shims.  $\frac{1}{16}$ " aluminium sheet is very good material for making the shims and the pattern below is actual size.



This negligible cost repair can save a very costly replacement of the Slipflex bearing as even with new bearings a "set" can very soon occur which puts you back where you started.

Les thought you might like to know what some parts cost way back in 1967 in comparison with today's (outrageous) prices: Clutch release bearing \$3.75, Clutch pressure plate \$19.70, Clutch plate \$10.95, Piston ring set \$8.75, Gearchange cable \$8.95.

The club has purchased six copies of the BMC Workshop Manual for Austin 1800 MkI, MkII and Utility from George Parker. Any member wishing to obtain a copy, they are available for \$10. Normal retail price is over \$40 so this is good value.

Whilst most of us are fairly competent in repairing and maintaining our Landcrabs, when it comes to repairing dents and minor body damage (and more importantly spray painting) most of us fall below 1<sup>st</sup> best. What the club needs is access to a cheap reliable panelbeater/spray painter. Anybody know one?

The Austin Motor Vehicle Club of QLD is organizing a meet of all Austin Car Clubs to take place in Dubbo during Easter 1991. Invitations have been sent to the NSW, VIC and ACT clubs — something to think about and prepare for in the meantime.

Without doubt all MkII owners have experienced a broken seat runner, especially on the driver's side. These were a poor design; the front bolt holes invariably break off sooner or later. The solution? Throw them away ... before doing so, however, try to get hold of a set of MkI seat runners. These will bolt onto a MkII seat (the MkI seat is 1" wider) and has the advantage that a strip of wood inserted between the runner and seat makes the MkII seat a little higher. The front bolt holes on the MkI runners are located directly in the channel and will never break.

**AUTOMATIC OWNERS:** When the flywheel ring gear becomes worn after lengthy service, it will be found increasingly difficult to start the engine due to the starter motor teeth not being able to engage in the worn ring gear. When the engine is switched off and comes to rest, the crankshaft and flywheel nearly always stop at the same position. Normally this is the time for some expensive repairs, not to mention the inconvenience. Not so on the automatic Landcrab where the solution is very simple. The flywheel ring gear on the automatic is bolted to the torque converter and not the engine. By removing the four bolts from the converter plate, turning the engine through 180° and replacing the bolts, the starter motor is able to engage on better, less worn teeth.

**ESANDA INTERNATIONAL RALLY:** The four members who volunteered to help with the Esanda International Rally in November had a great time and have sworn to attend next year's rally. The meeting place at the Corter saw them show at 6.15 am with bleary eyes but hopeful of a good day. Paul Hannaford had come from Goulburn, met up with Kathleen Phillips and they were joined by Len Eastwood and Bob Hull.

Peter Lambie, the coordinator, arranged for Paul and Kath to head off into the green hills at the beginning of Deek's Drive on a detour. They were to check the cars as they came through at one minute intervals (so that if one shot off through a short cut, the car could be traced). It was a superb morning — bright, cool, and they stood waiting between a newly felled area and a large stand of timber, watching the sun rise. The rain on Saturday night had settled the dust so there was no dust cloud as the cars flashed through.

Meanwhile Bob and Len were back at Deek's Drive doing a "Start". Len wants to apply for a position of up-country shepherd — he's quite experienced after keeping joggers away from a start/competitive section. His favourite reply after telling a jogger to run somewhere else, "Oh, the cars won't worry me!". Bob, doing the time calling to the drivers as they took off, was rebuked by one, "No need to shout. I can hear you. I'm not deaf, mate!" as Bob bellowed his departure signal into the window.

Winner: A Mitsubishi Galant (#2) driven by Ross Dunkerton and navigated by Fred Gocentas. Second Place: A Mazda 323 4WD, #5, driver Murray Coote, navigator Iain Stewart. Third Place: A Lancia Delta, driver Greg Garr, navigator Mick Harker, from the ACT. Best Show: An RX Turbo, #28, driven by Pat Roberts (NSW) came across the finish with the navigator, Steve Green, balanced precariously on the front right of the bonnet. They had collected a bridge along the way, wiping out the right rear wheel. If they had dropped out at this stage they would have earned "Did Not Finish", but by completing the last leg with the trailing arm tied up with a length of webbing they came in 17th. That's the fighting spirit!!

Our next meeting will be on Monday, 8 January, at the Canberra Yacht Club (enjoy the New Year's holiday!). See you there.

Remember ... You're travelling First Class.

Mick

**WANTED:** Warwick Wright is searching for a canopy for his 1800 Ute, preferably the genuine article. If you can help, phone him on 81.3088.

**FOR SALE:** 1800 MkII 1972. Well looked after, five good tyres, runs well, very reliable, spare engine, \$1000. Contact: Keith 54.6053.

And you will walk together from now  
to the end of the world.

# LANDCRAB



Number 21

Canberra and District Austin 1800 Club

February 1990

Disappointing! That is the only word to describe the attendance at January's meeting. Tom Malins, Peter Hawker, Mick Oates, a visitor and I were the only folk to brave that wet evening. Peter has attended a couple of previous meetings and has now decided to join the club. Apologies were received from Tom Bray. The club now welcomes:

Peter HAWKER	RMB 258 Williamsdale Road Burra Creek NSW 2620	(062)363 191 1970 MkII Manual Sedan
Elizabeth MULCAHY	28 Doomi Street Urbenville NSW 2475	1969 MkII Sedan

Pat Farrell and his family called in during a recent visit sightseeing the National Capital over the New Year break. He brought along sheaves of material on the Landcrab including several original sales brochures, all in new condition and still available from a motorists bookshop in Melbourne at \$3 per brochure. Pat also mentioned that teflon engine mounts are being made in Victoria, good news as these are virtually unobtainable new. Don't throw any old engine mounts away, especially the ones on the driver's side as Loctite are about to release a new bonding adhesive. I'll keep you advised as further information comes to hand.

Pat advised that the handbrake boot cover from a Morris Marina fits over the MkII handbrake perfectly. You are probably aware that Marina window winders also fit the MkII together with those from the Morris Nomad, 1300 and 1500 vehicles. He also supplied the name, address and fax number of a shop in the UK which supply new decals such as *Austin* (for the rocker cover), *Coopers* (for the air cleaner), and many others including those very colourful red/white/blue ribbon rosettes. Most decals cost around \$2 — very reasonable.

Sunday, 11 February, is the *Wheels 90* display day featuring antique, veteran, vintage, classical and historical motor vehicles. This year's venue is the ACT AFL Oval in Phillip and our club is encouraged to enter exhibits along with other ACT Car Clubs. Proceeds from this year's event will go to Camp Quality and the ACT Hospice Society. The Council of ACT Car Clubs advise that there will be a sponsorship prize to the club with the most interesting display. They are also still taking orders for the *Wheels 90* badges at \$2.50 each, cash WITH order. Exhibitors are requested to be at the Oval by 8.30 am.

With all the talk and publicity given to alarm systems and way to thief-proof your car recently, there is a very simple and effective way to prevent the Landcrab from being stolen or taken for a joy ride. As many of you know there is a short piece of flexible pipe leading from the petrol tank to the main solid pipe



which runs the length of the car. If a suitable petrol tap (similar to the ones used on old motorcycles) could be found and inserted into the flexible pipe it would effectively shut off the fuel supply to the engine, and could easily be turned off and on by reaching down under the rear bumper. To date I haven't found a suitable tap. Any ideas?

The Workshop Manuals purchased from George Parker have all been sold and our club financial balance is now \$158.72.

I bet there is not one Landcrab owner that has not experienced a sun-damaged rear seat — dried, hardened and cracked along the top. A repair can be made by obtaining another 1800 seat back or squab in the same colour from another car or a wrecker and taking it along to an upholsterer where he will cut out a suitable strip to replace the damaged area. Once repaired, regular treatment using Armor-All will keep the seats supple; Armor-All is excellent too for the vinyl along the top of the dash and the front/rear windscreen rubbers.

A recent episode dealing with leaking oil from gearchange cables and using *Heatshrink* has proved unsuccessful. As mentioned in the June 1988 issue of the newsletter, Tasman/Kimberley cables will fit. These cables are heavy duty compared to the original 1800 ones, and thicker. The cable ends also have a larger diameter and will NOT FIT into existing 1800 cable change housings. Tasman/Kimberley cables have extra long ferrules at each end, unlikely to ever leak. These cables are 1" shorter in length than the 1800, but it makes no difference and they fit ideally. As mentioned previously, the cable assembly must be replaced entirely. Canberra Auto Spares/Wreckers in Isa Street, Fyshwick, recently sold me a complete set of Tasman cables (including the change speed control box and cables change housing, all ready to bolt straight in) for \$30.

A visitor at our last meeting, John Johnson, showed us samples of some new heat shrinkable tubing. It employs the latest state of the art technology and is used by NASA. It is a product of AMP Inc of Harrisburg in the USA and, apart from an incredible shrinkage ratio when it's subjected to extreme temperatures, rarely melts, flows or sags. This material also has an adhesive lining which bonds forever. Enquiries are currently underway regarding its availability in Australia.

With reference to our Wales Landcrab connection, we received their latest Landcrab News, put out quarterly. Among items of interest: [1] The Austin 1800 in Denmark was marketed as the *Windsor*, the Morris equivalent being the *Monaco*; [2] Under parts for sale — new 1800 engine blocks £20 each (\$40), new sets of standard pistons £45 (\$90), new MkII grille £30 (\$60). I made a quick phone call to the UK to check surface shipping costs to Australia for the engine blocks; they quoted £175.50 (approximately \$350) for one, but cost would be the same for up to five blocks. If we placed an order for five engine blocks this would work out to approximately \$110 per block. Too expensive?? Bill Fraser also enclosed a Christmas card depicting Santa in a Landcrab and a box of Celtic shortbread.

Did you know the quartz clock from a Holden Commodore fits almost perfectly into the square hole in the Austin dash? A minor bit of filing is required on one side of the hole.

In the interest of the rally-minded amongst you, an article entitled *Football Special* is reproduced this month showing pictures of the preparations and descriptions used in the London to Mexico Rally.

The earlier reference to 1800s in other countries prompts me to reflect that in New Zealand the 1800 was known as the *Freeway* and was available as an English import (Australian or New Zealand assembled in New Zealand) or an Australian import.

Have you noticed, at one time or another, a spacer plate fitted to the front hubs of some models? Why is it there? The early MkIs and later MkIIs did not have them. It was fitted to the Mk1½ (as I call them), better known as the changeover model. When BMC introduced the MkII in 1968 a lot of the early cars were still fitted with Girling brakes until BMC ran out of stock; PBR was then fitted. Apparently the clearance between the inside of the wheel and the calipers was a bit on the lean side — though they did not touch — and BMC decided to fit a spacer plate to be on the safe side. Incidentally, spacer plates between hubs and wheels are ILLEGAL in Australia, unless they are bolted to the hub flange, an integral part.

Mike Bartsch, our member in Alice Springs, recently wrote to us conveying his New Year's greetings and enclosing some photocopies from the Australian Autofix, a DIY publication put out by Wheels between May 1975 and early 1977. The photocopies related to DIY jobs such as replacing/repairing universal joints, ball joints, wheel bearings and the like; an article on the first Princess with the 'B' series engine; and quite a few reader's problem letters. I see that a further visit to the National Library is warranted in order to catalogue all the relevant Landcrab publications. Mike noticed an advertisement in the Adelaide Advertiser of 20 December 1989 (reproduced below). He advises that Eglington Bros Pty Ltd, a service station of Maitland SA 5573 [Phone (088) 322 277] are Leyland agents — and all their service vehicles are Austin 1800 utes.

Our next meeting will be on Monday, 5 February, at the Canberra Yacht Club. See you there.

Remember ... You're travelling First Class.  
Mick

#### FOR SALE:

1969 MkII (Changeover) Manual Sedan: two-tone green with green interior, good tyres, registered until 10/2/90, \$1000. Contact Joan telephone 86 1410.

MkI Sedan: white in colour, good condition, good tyres with 9 months rego, spare motor (in need of clutch) goes with car along with numerous spares. \$1500. Contact John Johnson, telephone 883 791.

1968 MkII (Changeover) Sedan: beige in colour, 4 new tyres, sunvisor, headrests, weathershield, rego to 17 Aug 1990. \$1500. Contact George Parker, telephone 541 253.

5 New retread tyres, 195 x 14 fitted and balanced on 1800 rims. \$120. Contact George Parker, telephone 541 253.

#### GIVE AWAY:

MkI Engine and Gearbox: complete, one big end knocking, Telephone Bob 950 236 or 82 5262.

**STAR AUTO WRECKERS**  
26 Pagani Av., Newton  
PHONE 337 0000

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We buy, sell, wreck or repair.  
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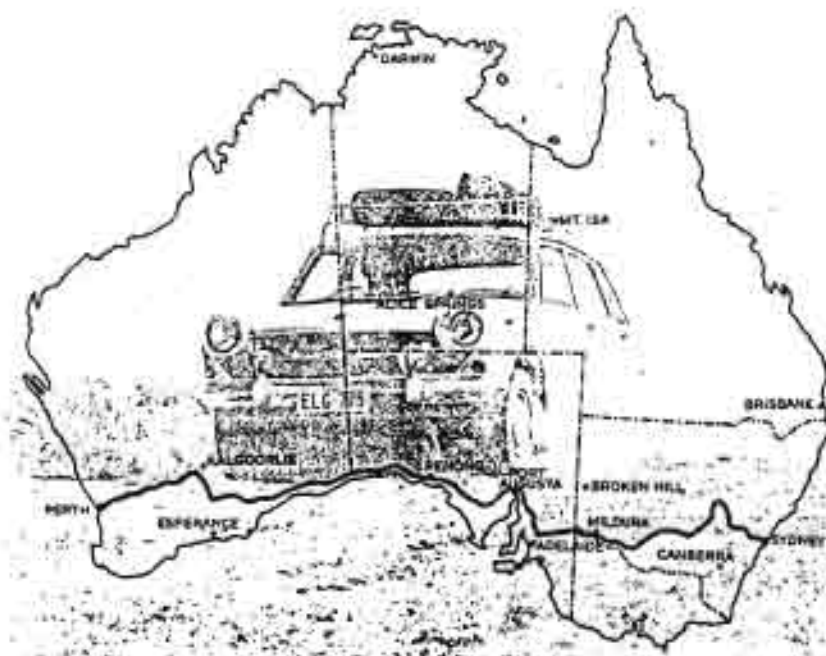
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WRECKERS — Buying and  
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Adelaide Advertiser





# LANDCRAB



Number 22

Canberra and District Austin 1800 Club

March 1990

This month's newsletter begins on a sad note. It is with deep regret that I announce the passing of one of our members; Colin McFarlane died on Friday, 2 February following a brief illness. He was a long time advocate of the 1800. Colin owned a BMC franchise in the Blue Mountains selling many of them and, following his retirement, continued to be involved in their servicing and repair. He was very knowledgeable on the Landcrab and freely imparted his technical know-how to all who requested it. He will be sadly missed. Commiserations go out to his children, Bruce and Jan, and the family.

It was good to see February's meeting so well attended. Apologies were received from Tom Mallins. Another membership was received last month — please welcome:

Peter JONES	26 Leichardt Street	(046) 262 094	1969 MkII Sedan
	Ruse NSW 2560		(fully instrumented)

Peter is also a member of the Austin A30/35 Owners Club in the UK as well as the Austin Motor Vehicle Club of NSW, of which he was the former editor. He sent us some interesting material including the specifications on the 1800 V8 and details of a Tasman ute, both of which are reproduced this month. Peter also has photographs of a MKI campervan and has seen a MkII version in Queensland. So have I. There were also at least two 1800 panel vans in NSW, not BMC produced and probably made from converted utes. Does anyone know anything about them?

Len Eastwood and I attended the recent quarterly meeting of the ACT Council of Car Clubs. As you know, they are responsible for organising the annual Wheels event and this year Kevin Fleming of WIN TV kindly donated 30 seconds of free advertising to publicise this year's event. Good on them! The GIO arranged a \$5 million insurance cover for the same event. Eighteen clubs are financial, including ours, and their club balance stands at \$534.17. The minutes of the meeting can be read at our next meeting. The next meeting of the ACT Council of Car Clubs is Thursday, 19 April, at 8 pm.

The Wheels 90 event on 11 February was well attended which is more than can be said for the dismal turnout of our club. Mick Oates and I with our MkIs were the only 1800 representatives. The threat of rain stayed away and the general attendance was very good which should please the organizers and charities.

With reference to a recent tip on rotating the automatic engine by 180° to counteract worn ring gear, Ed Lenny points out that the torque converter/ring gear should only be moved through 90° and NOT 180°. The motor will normally come to rest in the one plane whereas 90° positively puts it in a fresh section of the ring gear. In extreme cases a 1/2" spacer can be placed between the starter motor and flywheel housing. This ensures pinion engagement whilst still allowing clearance in the disengaged position. Les stresses this should only be a temporary measure.

Pat Farrell recently wrote to us with information that a fellow member of the AMVC VIC, Ken Patience (more about him later), has made up a mould for the teflon engine mounts. I shall be sending Pat a couple of shot mounts to be experimented on. Pat also advises that lower suspension bushes made out of teflon are now available in Victoria.

Ken Patience is a very cluey fellow. He is responsible for such things as simplifying replacement of a Sipler bearing, depressurising the hydrostatic suspension, replacing differentials for better cruising and economy, and a hydrostatic suspension pump together with drawings and dimensions. These articles appear in the Flying A, the AMVC VIC newsletter, loaned to our club and which will be reproduced in our newsletter by kind permission of the AMVC VIC over the coming months.

It was mentioned in an earlier edition of this newsletter that all filters are available from Swis Motors in Fyshwick (Filter Factory) at discount rates. For example, an oil filter for a MKII normally retails for \$11.95 but is available to us for \$8.35 — quite a saving. Similar savings are available for the Mki oil filter and air filter.

As long promised, the club booklet **Austin 1800 — General Information — How to get the best from your car** is complete and is included with this newsletter. You will note that all tips in previous newsletters are included and are listed alphabetically. These can be added to by yourselves from future newsletters. The Marbig clampfile in A4 size with a clear plastic cover is ideally suited for housing the booklet.

**Gearchange Removal:** Should you have occasion to remove the gearchange cables, control box and cablechange housing from the transmission, it can be done without disturbing the exhaust system. Simply remove the gearchange lever along with the six nuts which secure the top half of the control box. Next remove the four  $\frac{1}{2}$ " bolts securing the control box to the heatshield, and the lower half of the control box and cables will slip down at an angle between the heatshield, exhaust pipe and handbrake cable.

Peter Jones supplied the following:

- The disc pads used on the MkII 1800 are the same as those fitted to the 67-69 Ford Falcon XR and XT V8s, and the Fairlane ZA and ZB.
- The fan belt from the 81-83 Holden Commodore VH and VK 2.81 will fit the MkII 1800. It is a bit hard to fit and requires the removal of the top alternator mounting bolt, but will get you home if don't have the Austin belt.

Our technical topic this month features overhauling BL gear cables, appropriate as they have been mentioned quite a bit of late. The DIY suspension information and drawing are included courtesy of the AMVC VIC.

Bob Hull has recently cannibalised two cars and was left with a bodysheil. Not wishing to send it to Sims Metal and having no room to store it at his home, we towed it to Hughes. This body is very straight, has all doors, windows and screens, and is free of rust and body damage. It is obviously without a power unit and interior. As it is now club property it would be available to any club member free of charge should their Landcrab suffer serious damage due to a collision or similar. It is definitely not for wrecking and must be kept mobile at all time.

A woman in Curtin was cleaning out her garage recently and came across four rear displacer units. She contacted the club and they were purchased for \$20. It is my opinion that in the not too distant future displacers will become very valuable. Already in Queensland they are in very short supply and command \$25 each when they can be found. Let's face it — our cars are useless without them.

Hands up Mki owners who would like to install a radio/cassette but are put off because of the positive earth system. In days gone by, most car radios had a positive/negative polarity switch, but ALAS not any more. Enquiries during the past few months revealed that in order to fit a modern radio/cassette player in the car, the car's polarity must be reversed. I began by asking auto electricians how to go about it, but this is just what they are trained to do and to reveal the information would be to cheat themselves out of a job. The average cost is \$40 by the way. Various other people suggested it was just a simple matter of changing over the battery terminals, but they weren't completely sure of the outcome. The fair dinkum procedure is now at hand:

1. Disconnect the generator, wiper motor, electrical fuel pump (if you have one) and any instruments such as a rev counter.
2. Reverse the battery terminals to negative earth — remember, they are of different sizes and you may need to replace them.
3. If your car has an electrical fuel pump, two things may happen when reconnecting the terminal and switching on the ignition. The flow of petrol MAY be reversed (but not necessarily) or the capacitor MAY blow. If you suspect the first, remove the petrol feed pipe to the carb. If you feel suction against your finger, petrol is

flowing backwards and the pump will have to be replaced. If the pump does not work at all try replacing the capacitor.

4. The Lucas wiper motor fitted to MkIs is of the permanent magnet type and its polarity must be reversed or the park mechanism could be damaged. To do this remove the two long bolts in the motor, turn it 180° and replace the bolts.
5. Any electrical instruments which do not work afterwards will have to be replaced.
6. Start the engine and *flash* the generator wire several times across the terminal of the generator, then reconnect it.
7. A final check is a visual one. With the engine switched off, but everything else left connected negative earth, watch for any smoke for up to 10 minutes, checking that the generator does not get hot.
8. Now you can fit your sound system.

Our current membership is 41 strong with a breakdown showing that 21 are from Canberra and Queanbeyan, 17 from interstate, and 3 affiliated clubs (Australia and the UK). Our current balance is \$109.76.

**The next meeting is on Monday, 5 March, 7.30 pm at the Canberra Yacht Club. See you there!**

Remember ... You're travelling First Class.  
Mick

#### FOR SALE:

MkI Sedan: White, good condition, good tyres with 8 months rego, spare motor (In need of clutch) goes with car along with numerous spares. \$1500. Contact John Johnson, telephone 88 3791.

1968 MkII (changeover) Sedan: Beige, 4 new tyres, sunvisor, headrests, weathershield, rego to 18 Aug. \$1500. Contact George Parker, telephone 541 253.

1970 MkII Manual Sedan: Pale blue with ivory interior, push button radio, new tyres, towbar, weathershield, new gear cables, very good motor, 12 months rego. \$1400. Contact Alan Rohan, telephone 85 2936.

1800 MkII 1972: Well looked after, 5 good tyres, runs well, very reliable, spare engine. \$1000. Contact Keith, telephone 546 053.

1800 MkII Manual: Twin carbs, MG camshaft, new rubber, modified interior (black), MG clutch kit, electric fuel pump, good panels, rego to Oct. \$2000. Contact Rod, telephone 86 2174.

R/H Rear Suspension Arm fitted with new slipflex bush. \$50. Contact Roger Payne, telephone 910 647.

Four rear displacers. \$5 each. Telephone 82 5262.

#### GIVE AWAY:

MkI Engine and Gearbox: Complete, one big end knocking. Telephone Bob 950 236.

MkI and MkII doors, bonnet, boot, front bumper and gearbox. Telephone 82 5262.

MkII Bodyshell c/w screens, doors and windows. No rust and straight body. Not on wheels. Contact Peter (069) 363 191.

#### SWAP ONLY:

1800 MkI parts list for 1800 MkII. Contact Peter Jones (046) 262 094.

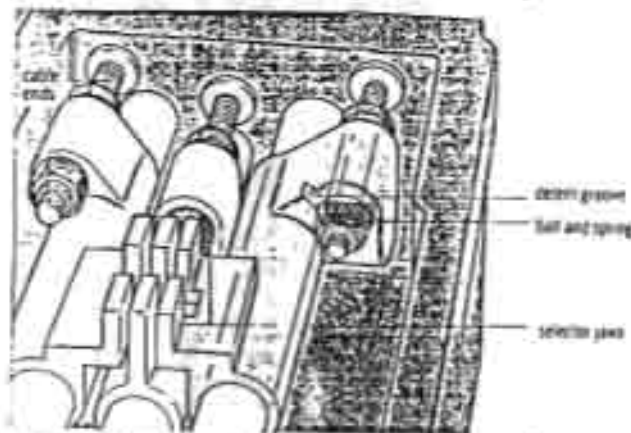
#### WANTED:

Warwick Wright is still searching for a canopy for his 1800 ute, preferably the genuine article. If you can help, telephone 813 088.

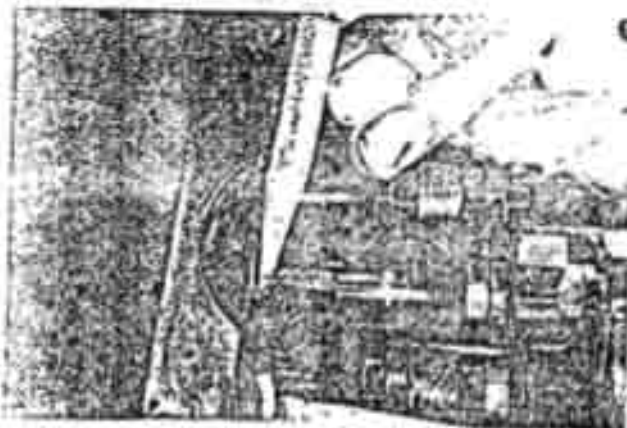




3. Checking alignment of selector jaws and interlock plate



4. Adjust cables to move jaws with gearbox selectors in neutral



5. Marking out the extent of selector cable movement

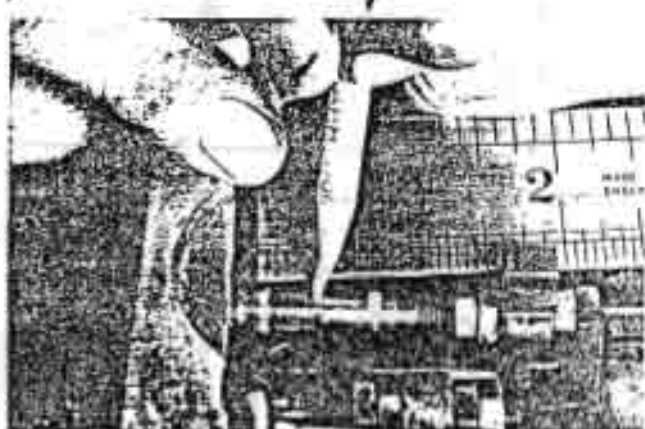
With both types of gearchange the cables are adjusted at the remote control unit from inside the car. You adjust by altering the position of the adjusting and locking nuts that hold the inner cable to the selector jaws. But the exact method you use does vary between the Maxi and 1800.

When you tackle the adjustment always make sure the selector jaws are in the neutral position, all in line and positioned so that the interlock plate can swing freely between the sets of jaws (fig 1). Slacken the cable locknuts and adjusting nuts so that you can align the jaws with the interlock plate in place.

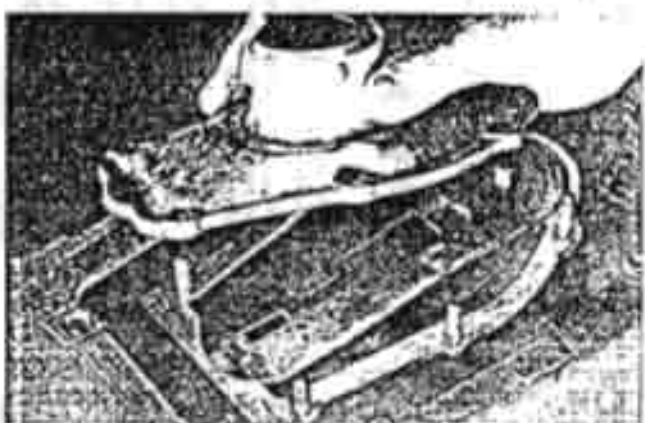
If you are working on a Maxi you must also make sure that the selector rods in the gearbox are all in the neutral position. To do this you must first find the detent plugs for the rods (your workshop manual will show you their exact locations). Beneath each plug is a spring-loaded plunger that holds the rod in the gear position selected on the lever. Remove each plug, spring and plunger. You will find that there are differing numbers of washers beneath the plug heads so do not mix them up or remove them from the plugs. It is a good idea to make a note of which plug fits each bore. By shining a torch down the detent plunger bore you will be able to see the selector rod and a shallow groove in its side. There are three grooves side by side on the rod and the middle one corresponds to the neutral position. Get a friend to push and pull the inner cable at the remote control unit until the middle groove is centred at the bottom of the plunger bore.

Slide the plunger to each bore and place a 30mm length of 6mm diameter bar or wooden dowel in the detent plug in place of its spring. Fit the plug and spacer, tightening the plug finger tightly to hold the selector rod

**FIX IT YOURSELF 161**



6. Marking mid-point of cable movement — this is neutral position



7. Refitting cover to remote control once it is back in the car

firmly in position. Tighten the locknuts and adjusting nuts on the cable ends in the remote control unit, but be careful not to disturb the alignment of the selector jaws. Then undo the detent plugs and remove the dowel or bar, refit the springs and replace the plugs and spacers.

On the 1800 you carry out all the work at the remote control unit. After you have slackened the cable nuts and set the jaws in position, push and pull each inner cable to get an idea of its full travel. Push it in fully and make a mark on the cable where it disappears through the

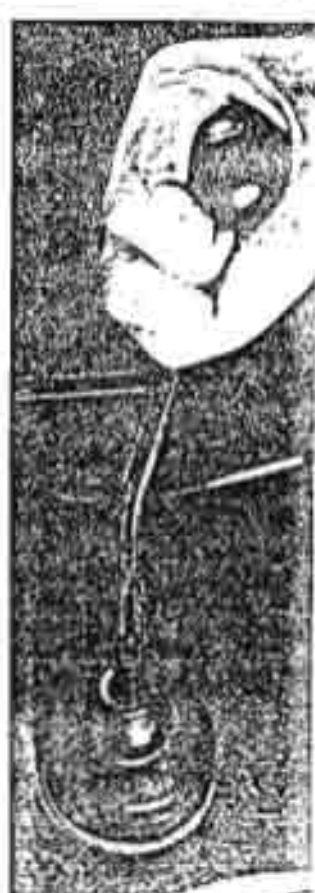
side of the remote control unit housing (fig 2). Then pull the cable out as far as it will go and make another mark. Measure the distance between the two marks and make a third mark exactly halfway between them (fig 3) — this is the neutral position.

With the selector jaws properly aligned in the neutral position, push the cable back in until the neutral mark is in line with the side of the housing and replace the nuts up to the outer selector jaws.

Finally, reassemble the remote control unit and gear lever (fig 5). Having first

lubricated the unit as well with a graphite based grease.

Check that you can move the gear lever freely to all positions in the gear and that the lever travels an equal distance between each gear position and neutral (fig 6). Take the car for a drive, trying each gear in turn and making sure that there is no resistance to changing gear or any strange noises coming from the gearbox as you change gear. If you have trouble getting any gears, cannot select some gears at all, or if you are unhappy about the changeover one gear is another, rectify the adjustment.



8. Checking free movement

**162 FIX IT YOURSELF**



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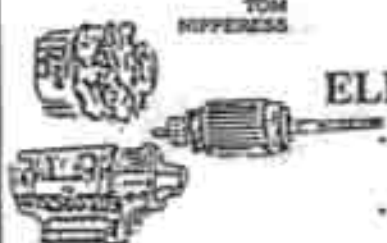
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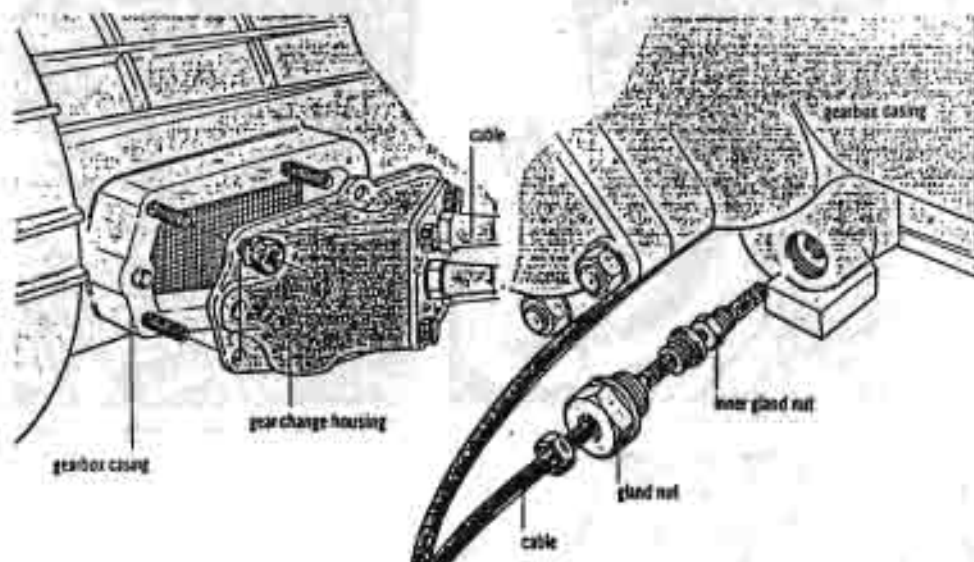
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## STEP 2 REPLACE THE CABLES



1. How cables attach to gearbox. 1800 (left) has separate housing on side of gearbox

Although it is just about possible to replace a single cable on the Maxi without removing the complete gear linkage (Fig 1), you would have to remove the exhaust system and lower the underfloor heat shield to reach the remote control unit. You will find it much easier to remove the complete remote control unit to fit the new cables. On the 1800 model the gear change housing (Fig 1) must be removed from the gearbox anyway so you may as well remove the remote control unit too.

In both cases, the gearbox should be drained of its oil, so do this first. Assuming you have already partially dismantled the remote control unit as described in Step 1, there is no need to do anything more to it at this stage. However, if something obvious has gone wrong so that you have not needed to carry out an inspection, you should remove the gear lever knob, rubber gaiter and floor plate - from either car - and the gear lever from 1800 models (See Step 1).

Lift the front of the car and

support it on axle stands. On the Maxi take each cable in turn and unscrew the locknut and gland nut holding the cable to the gearbox. Pull the gland nut back and use a pair of pliers to grip the inner cable. Pull this back until you can get a spanner on to the inner cable gland nut which screws into the end of the gear selector rod inside the gearbox (Fig 2). Unscrew the cable from the rod and then fit a long bolt (with the same thread as the inner gland nut) to the selector rod. Use the bolt to push the rod back into the gearbox until it is in the neutral position (the middle of its travel). Leave the bolt in place so that you can pull the rod out again when you connect up the new cable. If you are only replacing a single cable you do not have to push the rod back to the neutral position but if you are replacing all the cables the rod has to be pushed back to allow the other rods to move out in their turn.

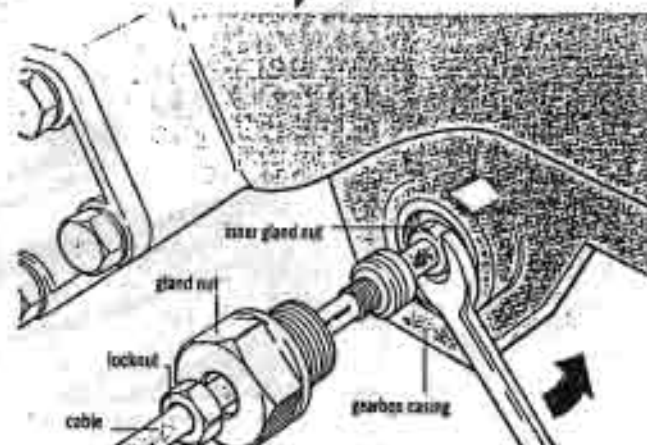
To gain enough room when you remove the remote control unit, undo the nut from the front mounting of the heat shield and

also disconnect the front silencer mounting bracket from the floorpan. Unscrew the bolts holding the remote control unit to the heat shield, disconnect the wiring to the reversing light switch in the side of the remote control unit and lift the entire assembly out of the car.

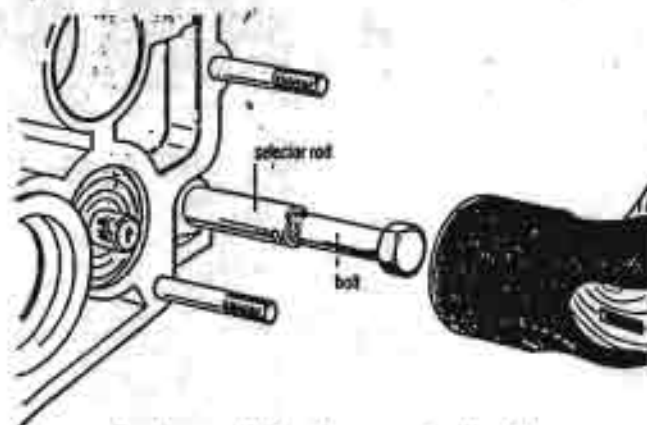
With the remote control unit on the bench, remove the top cover, gear lever and interlock plate (see Step 1) if you have not already done so. Unscrew the nuts holding the cables to the selector jaws, remove the bolts holding the cable retaining plate to the control unit, lift off the plate and its spacers, and pull out the cables (Fig 5).

To fit the new cable you simply reverse the removal procedure, pulling each selector rod out from the gearbox in turn to connect the inner cables. You will have to adjust the cables as described in Step 4 and refill the gearbox with the correct grade of oil.

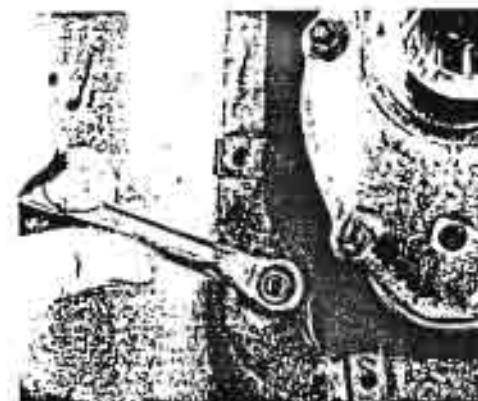
On 1800 models remove the nuts holding the gear change housing to the gearbox and slide the housing along its studs



2. Unscrew locknut, gland nut then inner nut to release cable



3. Tap each selector rod back after removing its cable



4. Unbolting remote control unit from floor



5. Removing cables from remote control unit

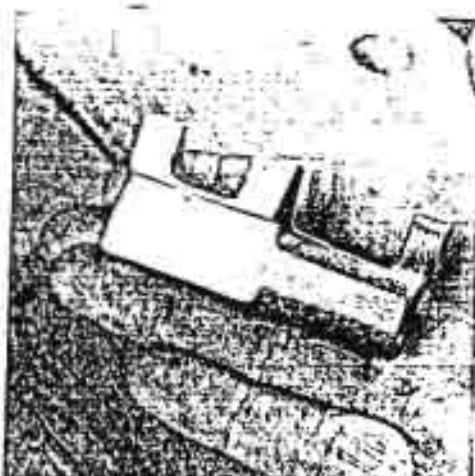
ready for removal. Disconnect the heat shield from the floorpan (rest it on the exhaust pipe) and undo the handbrake cable from its operating rod to give yourself additional working space. Disconnect the wiring to the reversing light switch and unbolt the remote control housing from the floorpan. Lower the remote control unit and pull the gear change housing from the gearbox. Block up the opening in the gearbox with a clean rag.

The cables are undone from the remote control unit in the same manner as on the Maxi, but at the gear change housing the cables are also held in place by a retaining plate. Unbolt this, making sure that you collect any spacers. Release the end of each cable from its operating lever and pull it free.

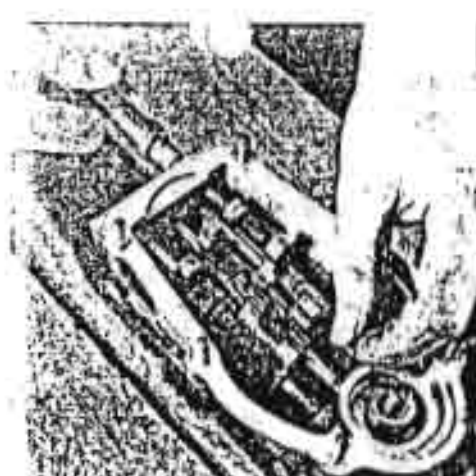
Again, replacement is a reversal of the removal procedure but you must make sure that you refit the cables to the right levers - the reverse cable is longer than the others and it also has a yellow mark on it. When you refit the gearbox use a new gasket and to be on the safe side coat this with a sealing compound. Also check that the gear selector levers are all in the neutral position, otherwise they will not fit back into the gearbox gear selector forks.



1. Drifting out selector rods from housing



2. Selector jaw with slight wear visible on side



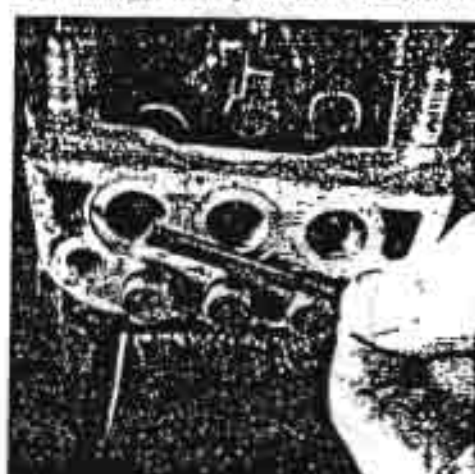
3. Refitting cables to control unit



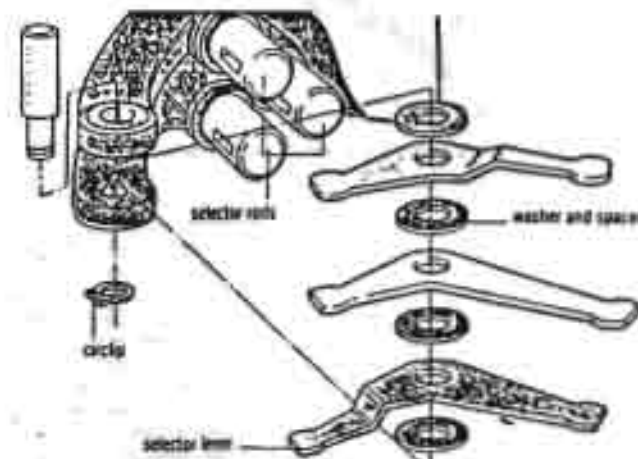
4. Reassembling gearbox selector assembly



5. Refitting selector rod and jaw



6. Laying retaining bar over rod ends



7. 1800 selector jaws transfer movement to gearbox selectors

The design of the remote control unit is very similar in both the Maxi and the 1800, the major difference being in the design of the gear lever dust cover and balljoint as described in Step 1.

Once you have removed the cables (see Step 2) you can dismantle the selector jaw/shaft assembly and remove it from the remote control housing. First, slide the shaft retaining plate from the forward ends of the shafts. Then drive

each shaft out of the housing with a metal drift, working from the back of the housing (Fig 1). As each shaft passes through its jaw on the Maxi remote control unit, a ball bearing and spring will be released from the jaw. Make sure that you collect these and keep them somewhere safe. Make a note of which way round the jaws fit and lift them out. Slacken off the locknut on the reversing light switch and unscrew the switch from the housing. Finally, release the

bolt holding the reverse selector stop plate to the bottom of the housing and lift out the plate.

Wash everything - including the interior of the housing - off with paraffin or an engine degreaser. Then inspect all of the parts for signs of wear, scoring, cracking or other damage (Fig 2). Discard any that you are not happy with and fit new ones.

When you reassemble the remote control unit start by **FIX IT YOURSELF** 60

replacing the reverse selector strap plate and bolting it in position. Next, the Maxi ball bearings and their springs must be refitted to the selector jaws and held in place until the shafts are reinstalled. First stick a bearing on the top of its spring with a blob of grease. Then gently slide the bearing and spring into their pocket in the side of the jaw base. Slide a screwdriver blade in from one end of the shaft bore and carefully push the bearing and

spring down while you slide a short metal rod or even a wooden dowel in from the other end to hold the ball and spring in place. The rod or dowel must be about the same diameter as the shaft itself.

Wash all the bearings and springs in place into the jaws to the housing (Fig 3), making sure that they are all lined the right way round. Gently tap each shaft through from the front of the housing and into the jaw with a drift. As you drive the shaft in

will push the dummy shaft out of the other end towards the T.A. and spring in place. Continue until the end of the shaft is flush with the rear face of the remote control housing. When all three shafts are in place fit the retaining plate (Fig 4) to the slots in their ends, insert the rods to align the slots if necessary. Refit the cables (Fig 5) and the reversing light switch.

If your car is an 1800 model, you will also have the gear change housing to check over. First, lift out the clip which holds the selector lever shaft in place. Use a soft metal drift to tap the shaft out of the housing's flange. Be careful as you push it out the selector levers and spacers between them will be freed; make a careful note of their positions first.

Again, make a careful check for wear after washing everything off. Pay particular attention to the pivot shaft - the shaft bore in the selector lever and the ends of the lever where they fit into the selector forks in the gearbox. Replace any badly worn or damaged parts and then reassemble the levers, spacers and pivot joint (Fig 6), using a new dowel to secure the shaft.



# Overhauling BL gear cables

Cable gearchange systems are never very precise, so any problems will quickly make gearchanging very difficult

## When to do this job

When you have difficulty selecting gears or when you hear unusual noises from the gearbox during gearchanging

## What this job involves

Removing the gear lever and remote control unit cover  
Measuring clearance at the selector jaws  
Disconnecting cables from the gearbox (Maxi)  
Removing the gear change housing from the gearbox (1800)  
Dismantling the remote control unit  
Dismantling the gear change housing

## Related jobs in this handbook

Gears difficult to engage  
Removing a front wheel drive gearbox  
Please see Index for page numbers

## To do this job

**Tools:** Jack; axle stands; Phillips screwdriver; spanners; socket set; feeler gauges; pliers; fine nosed or circlip pliers; hammer; soft metal drift; grease gun; oil drain can; rod bolts for selector  
**Materials:** New cables; circlips; split pins; gear change housing gasket; gasket sealant; engine degreasant; graphite based grease; engine/gearbox oil; length of 6 mm rod for spacer bars  
**Time:** About one hour for adjustment; approximately three hours for overhaul of remote control units  
**Degree of difficulty:** Help needed when adjusting Maxi cables, otherwise job relatively straightforward

## If you have the job professionally done...

Can you change gear smoothly? Can all the gears be selected easily? Do any strange sounds come from the gearbox as you drive along or when you change gear? Has the engine/gearbox oil been topped up?

On most cars gear changing is achieved by linking the gear lever either directly to the selector rods in the gearbox or to these selectors through a rigid rod remote linkage. However, some BL front wheel drive models — notably the early versions of the Maxi and 1800 — had cable operated gear change mechanisms.

Unlike a rigid rod linkage a cable linkage is subject to a certain amount of stretching in

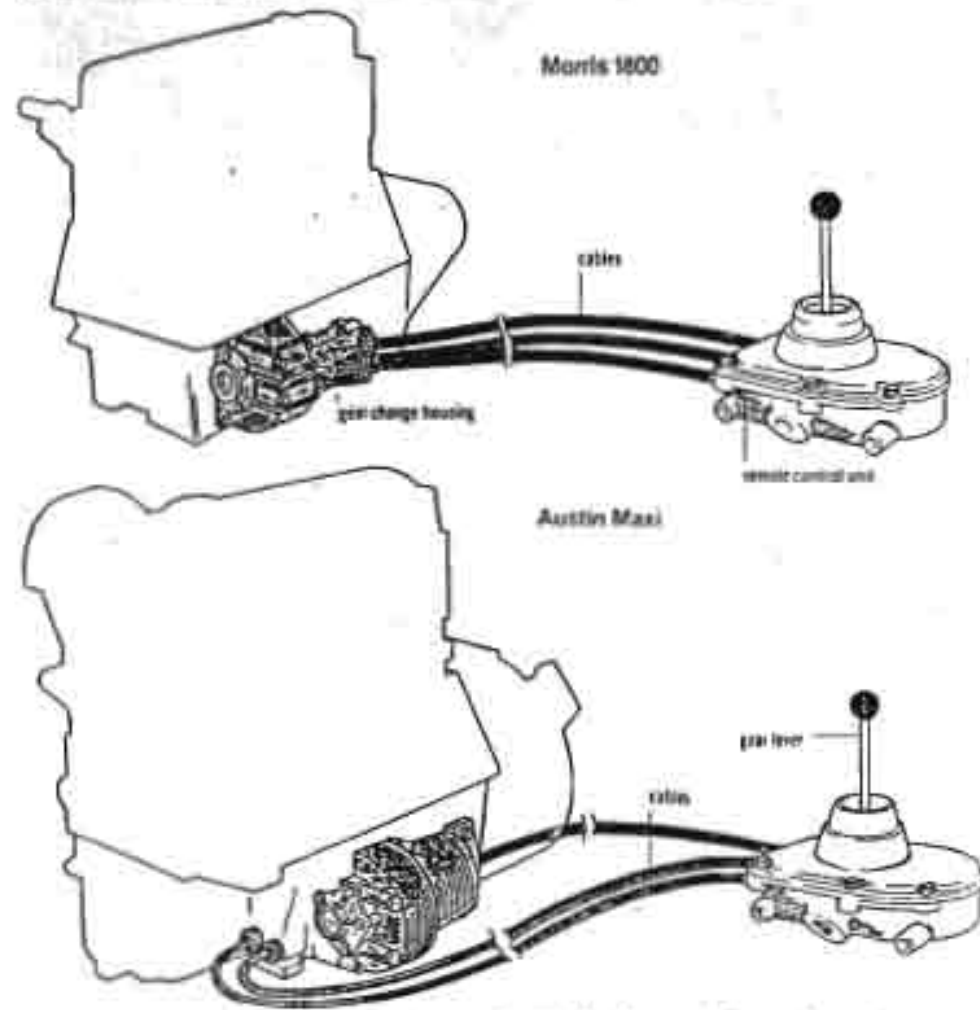
the cables which throws out the adjustment of the linkage and makes gear changing difficult.

If you have one of these cars and are having trouble selecting gears or there are strange noises coming from the gearbox, it is quite likely that the cable linkage is at fault. Adjustment is quite straightforward and even replacing cables is not a difficult job.

Before you begin work on the gear cables, however, you

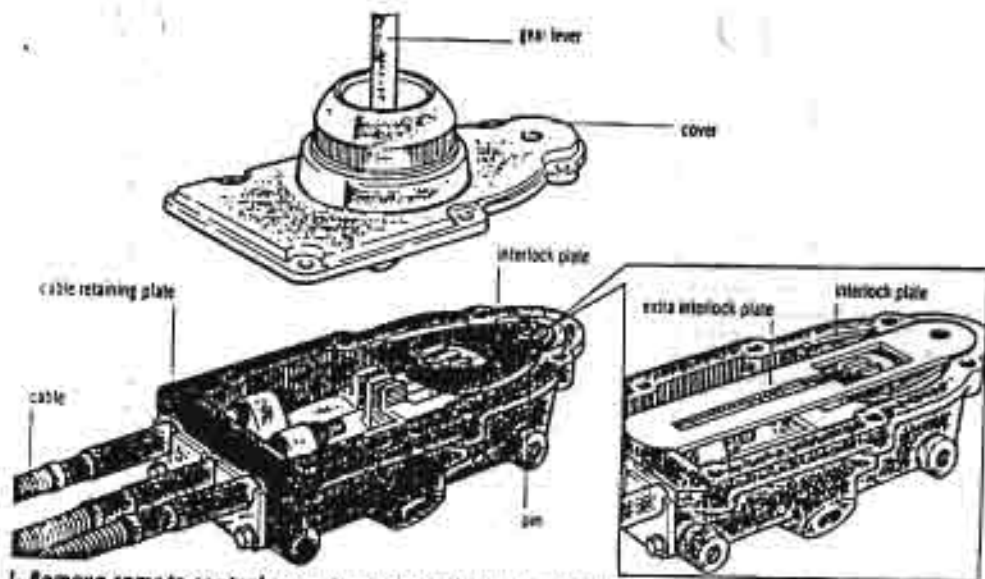
should make a thorough check of the clutch operating mechanism as this might be faulty (see FTY 451 to 460). Assuming the clutch and its operating linkage are OK, move on to the gear linkage.

The adjustment of the cable linkage on both Maxi and 1800 cars can be checked from inside the car, but you will now have to get underneath to inspect the cables for damage, and when carrying out a full overhaul



Both the early Morris 1800 and the early Austin Maxi had cable operated gearchanges.  
804 FIX IT YOURSELF





1. Remove remote control cover to expose selector jaws. 1800 has extra interlock plate (inset)

Because working under the car is messy and tedious you should check and adjust the cables from inside the car first. You will also be able to check for wear of the gear lever and selector jaws at the same time. If the cables and selectors are working properly and all the system requires is adjustment you will have saved the effort of jacking up the car and draining the gearbox.

To begin with, make enough

space to work in by pushing both front seats back as far as they will go. You will probably find that removing the carpet completely, as described on CC 55, will make the job easier — this also stops the carpet getting oily. Unscrew the knob from the top of the gear lever and then set the lever in the neutral position.

On the Maxi remove the screws holding the cover plate to the floor at the base of the

lever and slide both the plate and rubber gasket off the lever. There should be a sealing gasket around the edge of the plate and though this may be coated with a mastic compound for better sealing the plate should come away easily enough.

Next unscrew the six bolts holding the remote control unit top cover in place — take care not to drop any of the spring washers. Slide the plate and its

ball joint up off the gear lever and put it to one side. This will expose the innards of the remote control unit which should be full of grease.

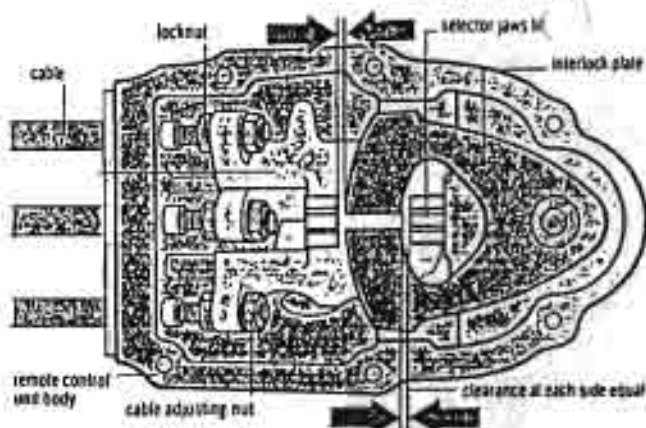
Lift the gear lever and the triangular interlock plate (fig 2) out of the remote control unit and then remove as much of the grease from the unit as you can. Use a thin piece of wood, rags (fig 3) or even some form of syringe if you can find one.

Make sure all three of the cables which enter the front of the remote control unit show no signs of breakage or wear at their ends and that the nuts holding them to the selector jaws are tight (fig 4). You should also check that the retaining plate which holds the cables to the remote control unit housing is secure.

Replace the interlock plate so that its slot is in line with the central selector jaw. If the cables are correctly adjusted all three jaws will be in line and there will be an equal amount of space between the front and rear edges of the plate and the front and rear upright portions of the jaws (fig 5). Check this with a set of feeler gauges. Move the plate from side to side on its pivot, making sure it passes freely between the jaws. If you decide that adjustment is needed refer to Step 4.

Inspect the slot in the interlock plate, its pivot, the selector jaws and the base of the gear lever for signs of any wear that will make the movement of any of these parts sloppy — if there is much movement or wear you will need to renew the parts. Also make sure that the spring at the bottom of the gear lever is not broken and that the ball joint screwed to the remote control unit top cover is undamaged. The dome shaped portion of this joint can distort and jam in its housing, making gear changing difficult.

Before you reassemble the remote control unit and gear



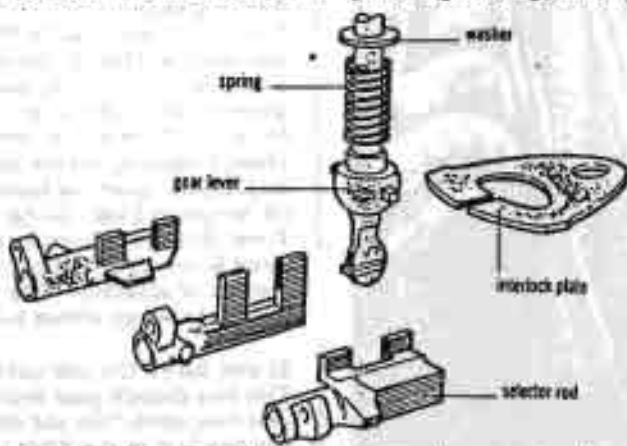
5. These clearance gaps should be equal with jaws in line

lever, jack up the front of the car, support it on axle stands and crawl underneath for a look at the cables. Check the condition of the outer cables, making sure they are not rubbing or chafing on anything. You should also make sure that the gland nuts which hold the cables in place are tight.

The method of checking the linkage on the 1800 is basically the same as on the Maxi, but instead you have to push down and twist a spring-loaded dust cover at the base of the gear lever so as to release it. This will then allow you to remove the gear lever and the top cover of

the remote control unit. At the gearbox end the cables enter a special gear change housing and are held in place by a retaining plate similar to the one which holds them to the remote control unit. You should also find a retaining band fitted round the cables and this should be fitted about 5 in (120 mm) from the cable retaining plate (gearbox end).

With both models of car if you decide that any cables need renewing refer to Step 7. If the cables appear sound, the problem may lie with the remote control unit or the gearchange housing (1800 only).



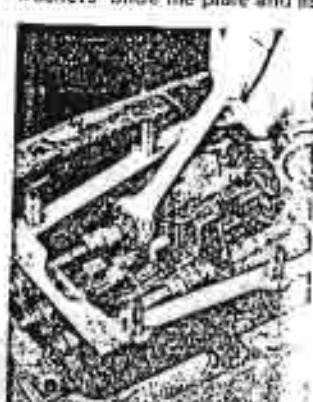
6. Release of the remote housing which now hangs inside



1. Removing interlock plate



2. Cleaning remote housing



4. Check nuts for tightness

# EXPERIMENTAL DEPARTMENT

## VEHICLE NUMBER 50

This vehicle was produced by BMC Australia during late 1968 and early 1969, using a basic Austin 1800 body shell.

The preliminary draughting layout for the power unit began in February 1968, with the body layout starting the following April. Component manufacture for this vehicle started in May of the same year. Major components were manufactured between October 1968, and January 1969, with the vehicle having its first run on 10th March 1969.

The vehicle was assembled using a newly trimmed MkII Y80 18 (Australian version of R00 17), body being removed from the production line, and having the entire front end of its body from the 'A' posts including the dash removed. New panels manufactured and fitted included Valances, Dash Panel, Upper and Lower Longitudinals, Torsion Member, Foot ramps and Seat Mounting Console. The existing front crossmember and grille was retained although extra air slots were added above the bumper bar. Both front fenders and the bonnet were lengthened by 4 9/16". No alterations were made to the vehicle rearward of the 'BC' post.

The engine used was a basic Rover 3.5 litre V8 unit having its capacity increased to 4.2 litres by the fitment of a Repco single plane crankshaft, with its stroke increased from 2.8" to 3.57", during testing before installation this engine produced 154 bhp at 4400rpm.

The drive was taken through a standard Rover torque converter via a front pump into a gear train

which transmitted the drive into Borg Warner 35 automatic gear train.

Due to the width and length of the V8 Engine it was necessary to change the position of the hydrostatic displacer units. These were placed vertically in the new 'A' frame suspension carrier which was rubber mounted to the body. The weight was supported at the top by a Triumph 2000 upper suspension mounting and at the bottom by 2 smaller rubber bushes one on each leg of the 'A'. The forward leg retained the lower suspension arm and the rear leg the tie bar, both being rubber mounted to the 'A' frame carrier.

The vehicle was also fitted with a Ford Falcon column gear change and spring loaded accelerator pedal as well as an R60 handbrake mounted between the drivers seat and door.

A LHD Y80 18 steering rack was modified, inverted and placed forward of the axle. This was mounted to a 'Bolt on' crossmember, which also carried the front engine mounting. A Ford Falcon steering wheel and column assembly was coupled to the rack by a Torrington Universal Joint.

According to all those who drove the car, it was very quick, and showed up all of the locally produced V8's, but the project was cancelled because a conventional drive car was favoured and this prototype was scrapped.

P.R.J. 1/1/90.

## AUSTIN TASMAN UTE

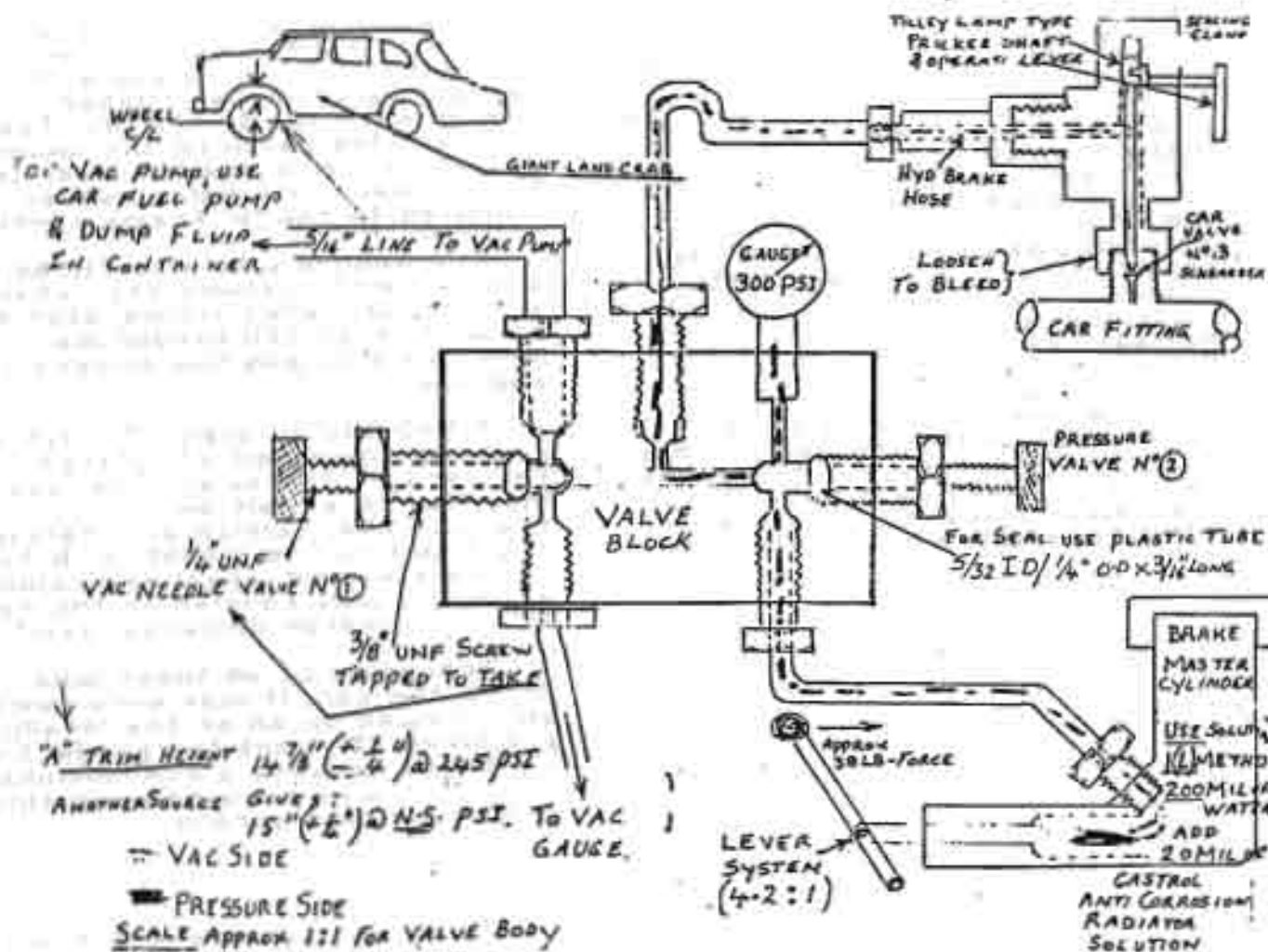
During prototype testing of the Austin Kimberly/Tasman range of sedans, BMC Australia also produced two Tasman utes (pick-ups).

One of these utes was written-off very early in its life, because it was used for crash barrier testing at Ford Australia test grounds in Victoria, and of course it passed the test. The other ute was registered for road use, and was used by Leyland Australia in their Sydney factory at Enfield until the factory was closed during the 1990's, when the vehicle was sold off.

The Tasman ute was due to be released at the same time as the Kimberly/Tasman sedans, but was dropped from production before any more models were made. The first issue of the factory workshop manual (and possibly the handbook) showed a picture of the ute. It is most likely that these books were never released to the public, although most likely a few did get out (I know of one but where it is now, who knows?).

The Tasman ute used the body (rearward of the 'A' pillar) as the 1800 ute, but of course it used the Tasman trim and door handles. From the 'A' pillar forward the ute used standard Tasman parts, including the 'E' series 2200cc six-cylinder engine and transmission driving the front wheels.

P.R.J. 2/1/90.



## D.I.Y. Suspension

### DEPRESSURIZING SYSTEM

1. Remove vacuum gauge (to avoid fluid pressure) and plug opening in valve body - ensure needle valve 2 is closed.
2. Connect hose and fitting to cart depress car Schrader valve, open No. 1 valve slowly and allow fluid to flow direct to suitable container (may be dirty fluid).
3. Do work on suspension system and inspect Schrader valve.

### EVACUATING SYSTEM

1. Remove plug and install gauge and connect hose end to car.
2. Ensure container installed as vac pump delivery outlet valve 2, is closed.
3. Open valve No.1 (vac side) and depress car Schrader valve.

4. Pull 27" HG on suspension system and hold for not less than 5 mins. (a car fuel pump in good order can be hand operated with a tube lever over operating lever and will pull 26" - 27" HG)
5. Close car Schrader and needle valve No. 1

### REFILLING SYSTEM

1. Bleed fluid from master cylinder to needle valve 2, by removing pressure gauge (or include a bleeder screw in valve block to cylinder side of No.2 valve for this purpose). reinstall pressure gauge or close bleed screw.
2. Open valve No. 2 applying some pressure to master cylinder to follow up fluid sucked by vacuum into system - pump up system to correct suspension height and correct P.S.I. reading.  
 Note: To take a correct P.S.I. reading of system, plug valve body at line to master cylinder then open car Schrader valve No. 1 and needle Valve No. 2 gauge will then read system pressure.



# LANDCRAB



Number 23

Canberra and District Austin 1800 Club

April 1990

Owing to the Canberra Trades and Labor Day holiday and the late notice given by the Canberra Yacht Club of their closing, last month's meeting was cancelled. However we do welcome new members:

Bela SZARKA 10 Eggleston Crescent 812 965 Mki Sedan  
Chifley ACT 2608

Paul KEMP 9 Dobson Crescent (02) 801 545 1969 Mki Sedan  
Ryde NSW 2112

During the past month correspondence was received from 3 members. Ian Davey, who is slowly pepping-up his 1800 with performance gear, relates he has located a company specializing in performance equipment: Pole Position Motorsports. They are the Australian agents for Kent Cams components and list 10 performance cams including 4 Leyland Special Tuning Profile cams plus heavy duty valve springs and roller rockers. No price list was included. Their address is 1 Tracie Close, Kariong NSW 2251. Ian also got on to a company in WA who import high performance parts and accessories from UK and USA; distributors for Piper cams, Janspeed Exhaust and Oselli Engineering, all of whom deal with the 'B' series engine. The company is All Fours Performance Centre, Unit 20/90 Mallard Way, Cannington WA 6107.

On the subject of those panel vans, Les Lenny wrote to say he saw one for sale a few years back in a caryard at Ulladulla. The story goes that the Royal Australian Navy had 3 or 4 made up for use as ambulances. Whether BMC or a specialist body-builder did the conversion is unclear but they were professionally made. They were believed to cost in the region of \$16,000 each. Les is wrecking his Mki utility and invites enquiries from any members.

Peter Jones also wrote, enclosing a photocopy of the Crayford Austin 1800 Estate Car (UK) which appeared in the November 1966 issue of *Autocar*. Should anyone want to borrow it ... just drop me a line.

Peter is compiling a book to be called **History of BMC Vehicles** and has requested the chassis prefix details of Austin 1800s produced in Australia. Unfortunately I am unable to help him on this one — perhaps one of you can?

On the international front, Bill Fraser (our UK Landcrab counterpart) wrote with some encouraging news on spare parts. He bought a job-lot of parts recently and, at the time of writing, had not catalogued all of them but following is a rough list of what he does have:

Bumper bolts; MkII window regulators; Wolseley chrome window winders; MkII door locks (catches); bumpermounting bars; 1800 camshafts; 1800 swivel hubs; MkI Austin grilles complete; MkII chrome finisher for companion boxes; metalistic suspension rubbers; MkI front indicator lights; MkI Morris and Austin rear lights; MkII oddment box (to fit where radio goes); MkI 13" wheel trims; assorted gasket sets; exhaust rubbers; MkII drive shafts c/w CV joints; assorted Timken bearings; assorted brake and throttle cables; oil seals; dashboard switches; 1800 brake discs; tie rod kits; tension springs; PAS high pressure hoses; MkII handbrakes; steering column; fuel gauges; MkII speedometers, petrol caps and locks; assortment of MkII lenses; reducing valves; radiator fan; oil dipsticks; pulley assembly; valves, valve guides and pistons; MkII air cleaners, paper elements; MkII Morris grille badges; rear hub assembly, trailing suspension arm; main bearing sets, track rod end service kits (rubber bellows); steering columns; steering plastic cowl; MkII steering lock type; MkII front mudguards; Wolseley 18/85 and 2200 rear mudguards; MkII bonnets; genuine BL mudflap kits with BL logo; gearbox components; MkII gearboxes ... plus dozens of smaller items.

You are welcome to items and he invites us to put together an order so shipment can be made in one go. Prices will be kept to the bare minimum just so long as Bill can cover his costs. At this point in time there is every possibility that shipment to Australia would be free of charge courtesy of one of their club members who has contacts in the right place.

Regarding the turn indicator assemblies, Bill got on to a bloke who has about 20 of them and wants \$15-\$20 each for them. Bill will let us know if he can get them any cheaper.

I have been chasing new CVs for some time now and Bill has found a bloke in the UK who has 27 of them, selling them at \$20 each (nett), around \$40 to us. His name is B.C. Shannon — international phone number 0011 44 52789 2003/4/5/6, telex 336 824.

Ever thought the 1800 was low-geared? This is due to the Aussie Austin 1800s being fitted with a 4.1 diff ratio. In the UK, however, 3.8 was standard with a 4.1 diff being optional. Interestingly the automatics (UK and Aussie) have a 3.8 diff and one would be forgiven for thinking it would be an easy matter to substitute an auto 3.8 for a manual 4.1 diff. Alas, this is not possible as the engineering of the manual and auto diffs are quite different. There is an alternative however; the diffs on the English Princess and Ambassador models are 3.7 and will fit ... IF YOU CAN FIND ONE. Recently a member of the AMVC Vic tried to locate one in Australia but was unsuccessful. The next step was to obtain one from overseas (UK or New Zealand). New Zealand being closer, he finally tracked a company down in Wellington by the name of **Gearbox and Steering Rack Centre** who specialize in this field, and he managed to obtain a 3.8 diff. The address of the company is Unit 2, 131 Park Road, Miramar, Wellington, New Zealand. The result was an unqualified success. First gear is no longer a stump puller and now has some use on the road. Second gear starts are now reduced to downhill efforts. Third gear is a gem and the highway cruising is significantly quieter with better overtaking time. Top speed is up to about 95 mph. [PS Power steering assemblies, ie rack, pump and upper suspension arms, are also available from the NZ outlet.]

Our technical topic this month is overhauling the front driveshaft.

MkII window winders are virtually impossible to get hold of any more, being scarce as hen's teeth at the wreckers. They were a bad design, the plastic of poor quality and easily breakable (as MkII owners everywhere will testify). Perhaps now is a good time to get hold of some old MkI doors whilst they are still around and remove the window winding mechanism complete with the metal winders, which are longer lasting, and substitute them into your MkII. Of course another alternative is to replace the window winders with Range Rover ones ... If you can afford them.

Should anyone be contemplating fitting a towbar to their Landcrab, the wiring code for the 6-pin trailer connector is listed below:

Side, tail, no plate lights	Red/Green tracer	Terminal W.1
Stop light	Green/Purple tracer	Terminal 1
Left flasher	Green/Red tracer	Terminal 2
Right flasher	Green/White tracer	Terminal 3
Earth	Black	Terminal W.2

Last month's postage costs were a little steep, as you can imagine, with the literature that was sent out, booklet, etc. As a consequence the balance of the club fund is now \$75.48.

The next meeting is on Monday, 2 April, 7.30 pm at the Canberra Yacht Club. See you there!

Remember ... You're travelling First Class.

Mick

**FOR SALE:**

Mk1 Sedan: White, good condition, good tyres with 8 months rego, spare motor (in need of clutch) goes with car along with numerous spares. \$1500. Contact John Johnson, telephone 88 3791.

1968 Mk11 (changeover) Sedan: Beige, 4 new tyres, sunvisor, headrests, weathershield, rego to 18 Aug. \$1500. Contact George Parker, telephone 541 253.

1970 Mk11 Manual Sedan: Pale blue with ivory interior, push button radio, new tyres, towbar, weathershield, new gear cables, very good motor, 12 months rego. \$1400. Contact Alan Rohan, telephone 85 2936.

1800 Mk11 Manual: Twin carbs, MG camshaft, new rubber, modified interior (black), MG clutch kit, electric fuel pump, good panels, rego to Oct. \$2000. Contact Rod, telephone 86 2174.

Les Lenny is wrecking Mk1 utility, telephone (048) 836 536.

R/H Rear Suspension Arm fitted with new slipflex bush. \$50. Contact Roger Payne, telephone 910 647.

Four rear displacers. \$5 each. Telephone 82 5262.

**GIVE AWAY:**

Mk1 Engine and Gearbox: Complete, one big end knocking. Telephone Bob 950 236.

Mk1 and Mk11 doors, bonnet, boot, front bumper and gearbox. Telephone 82 5262.

Mk11 Bodyshell c/w screens, doors and windows. No rust and straight body. Not on wheels. Contact Peter 363 191.

**SWAP ONLY:**

1800 Mk1 parts list for 1800 Mk11. Contact Peter Jones (046) 262 094.

**WANTED:**

Warwick Wright is searching for a canopy for his 1800 ute, preferably the genuine article. If you can help, telephone 813 088.

# Monza Marathon

by BMC's Competitions Manager PETER BROWNING

GIVEN the choice of any car in the BMC range, probably the last one you would pick to go record-breaking would be the 1800!

Yet, when I finally persuaded the F.I.A. to part with a copy of their book of international and world records, I was surprised to find that the 2-litre records were the only ones worth going for—most of the others already being held by Austin-Healey and M.G. anyway.

(Out of interest, BMC cars still hold some 87 international and world records, more than all the other British manufacturers put together.)

And so, early this year I started to think about an attack on Class E records—the 1800 being the most appropriate car for the job, the idea of using the big six-seater coinciding nicely with our rally programme for this model.

As we had never had any experience of running an 1800 on a banked circuit, and we did not know what would happen to the Hydrolastic suspension when it was 'compressed' for hour after hour of high-speed driving, I decided to have a two-day test run.

After the Geneva Rally in June, we took a completely standard 1800 fitted with a rally-tuned engine over to the Autodrome. The results were most encouraging, for we covered just over 1,000 flat-out miles, the car averaging 110 m.p.h. without any troubles at all.

The regulations for record-breaking are pretty open, and you are virtually free to do anything you like in the way of modifications and weight-saving, provided the car remains within 1 per cent. of the class limit (in our case 2 litres).

You must, however, carry on the car all the tools and spares you expect to use throughout the attempt so this means carrying quite a load.

And so LBL 416E, an ex-Longbridge demonstration Morris 1800, arrived in the Competitions Department, and work began on preparing her for the attempt. As with all our competition cars, LBL was completely stripped down to the bare chassis and meticulously put together again, using carefully selected and assembled components.

Suspension-wise the car was left completely standard, with two small exceptions. Longer Aeon bump rubbers were fitted at the front to try to combat the rough punishment that the Monza banking would hand out. Adjustable tie-rods were fitted to the front suspension, these permitting the front suspension to be quickly realigned in the case of accidental damage or general wear and tear.

As you drive round Monza flat out all the time; and the brakes are only used for pit stops, no modifications were necessary in this department, although competition pads (DS11) and linings (VG95) were fitted as a routine precaution. To save weight, the servo unit was removed.

Engine modifications were kept fairly basic, the block being bored to bring the engine capacity to 1880 c.c. The compression ratio was raised to 10:1 and a Downton gas-flowed head was fitted along with a Downton manifold and exhaust system. The standard single carburettor was replaced by a pair of 2-in. S.U.'s and an MGB 770 camshaft was used. A nitrided crankshaft was fitted and everything was, of course, carefully balanced.

Other visible under-bonnet modifications included a Lucas 11AC alternator and an MGB oil cooler. The 4-1 final drive ratio gave 17 m.p.h. per 1,000 r.p.m.—which meant that the 1800 could

gallop along quite happily at 5,900 r.p.m. at 100 m.p.h.

To compensate for the penalty of having to carry all the tools and spares on the car the body was considerably lightened by fitting aluminium bonnet, doors, and boot lid. Perspex windows were also fitted. Ready for the attempt, the car turned the scales at almost exactly the same weight as the standard car.

Other special equipment included a 24-gallon fuel tank with a big-bore fuel filler neck sticking up through the boot lid; quick-lift jacking points front and rear; a comprehensive cluster of instruments; an adjustable throttle stop for flat-out cruising; a spare oil reservoir in the cockpit for topping up the oil on the move by means of an electric pump; Minilite wheels and 5-50L-13 Dunlop racing tyres; four additional driving lamps (two fog lamps plus two spot lamps specially wired to operate on a master switch as emergency headlights); a pair of removable plastic headlamp covers; and a Perspex bug deflector on the bonnet.

Overall fuel consumption worked out at 15 m.p.g., while the consumption of Castrol XL was a very creditable 850 miles to the pint for the week.

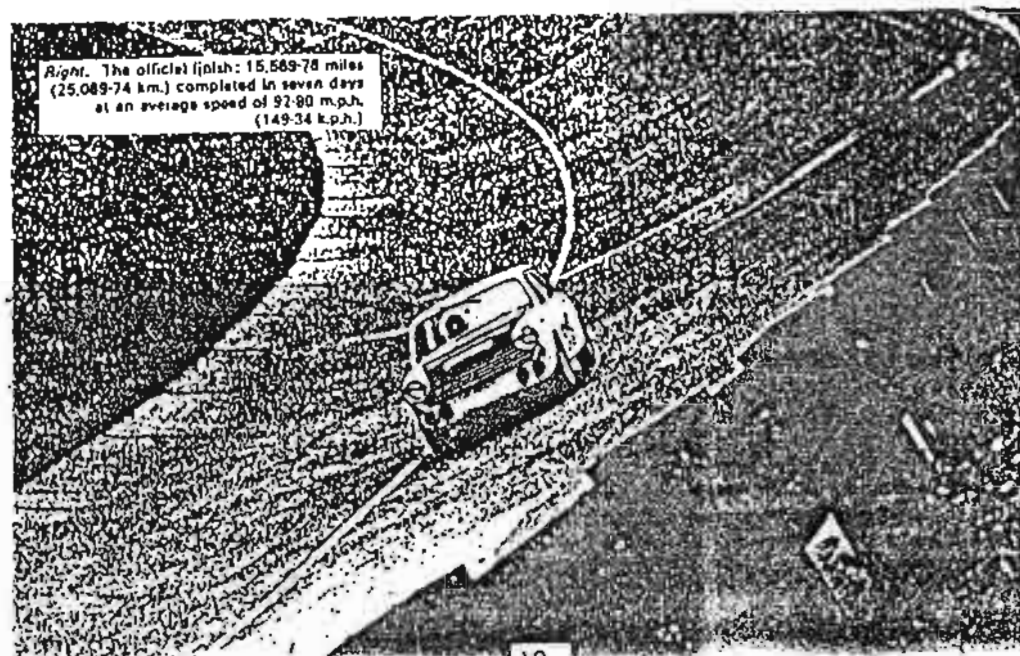
The only work carried out on the car, other than routine checks, was to tighten the fan belt, check the points, top up the battery, adjust the tappets, change the plugs (three times), change the oil (twice), pump up the Hydrolastic suspension on the driver's side, adjust the carburettor settings (twice), and fit two new Aeon bump rubbers on the front suspension.

To say the least, the F.I.A. observers were more than impressed; indeed, one declared that our performance had even persuaded him to buy an 1800!

Needless to say, the drivers were the ones who caused the only dramas during the week!

Extract from the B.M.C. magazine "Motoring" December 1967.

*the successful attack on the Class E Production Car Records*





## FIX IT YOURSELF

# Front driveshaft overhaul

Front driveshafts have joints at each end to allow for wheel movement. The shafts must be taken off to overhaul the joints

If your car has front wheel drive you may have noticed that there are occasional knocking noises from the driveshafts. These noises, particularly if they happen when you accelerate

with the steering turned to full lock, indicate that a driveshaft overhaul is due. You can remove the shafts and either overhaul or renew the joints in the shafts.

### When to do this job

If the driveshafts knock, especially when under power or when accelerating hard with the steering turned to full lock

### What this job involves

Removing hub and brake assemblies  
Removing driveshaft  
Separating joints from driveshaft  
Overhauling or renewing joints  
Replacing driveshaft

### Related jobs in this handbook

Replacing track rod ends  
Transverse engine renewal  
MacPherson strut overhaul  
Please see Index for page numbers

### To do this job

**Tools:** Spanners; screwdrivers; circlip pliers; jack; axle stands; wheelbrace; hammer; drift; ball joint splitter; torque wrench

**Materials:** New joints, boots or grease as needed

**Time:** Allow two hours for each shaft

**Degree of difficulty:** Assembling joints needs patience and cleanliness; removing and refitting joints needs care

### If you have the job professionally done...

Is driveshaft silent when you accelerate on full lock?  
Have you seen the old, worn parts? Can you feel any vibration from the shafts when driving at speed?



## STEP 1

## DISCONNECT THE HUB

Your manual will tell you how much of the steering and suspension assemblies you need to dismantle in order to remove a driveshaft.

In all cases, the first step is to move the driveshaft securing it in the centre of the hub. If you are working by yourself it is easier to do this while the road wheel is still on and the car is on the ground, but if you have an assistant, jack up the car and support it on axle stands, then

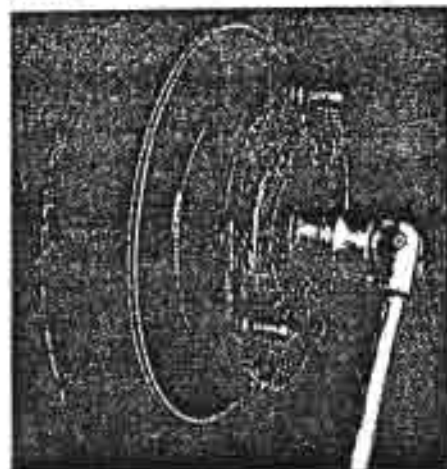
take off the road wheel and undo the hub nut while the footbrake is held on (fig 1).

The hub nut may be held by a split pin or may be staked on to the central shaft. Pull out the split pin or tap back the staking with a fine punch so that the hub nut is free to turn. If your car has a left hand thread on the offside drive shaft your manual will tell you. Undo the central nut and keep any washers that come off with it. If the road wheel is still

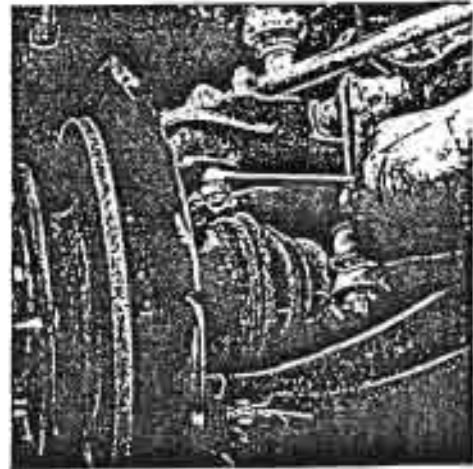
on, support the car on axle stands and take it off.

If you want to remove the hub completely, you should disconnect the brakes at this stage. On disc brake systems, you will need to unbolt the caliper which is usually held by two bolts behind the hub (fig 3). Usually, the brake hose can stay attached, but you must not strain the hose, so tie the caliper safely out of the way.

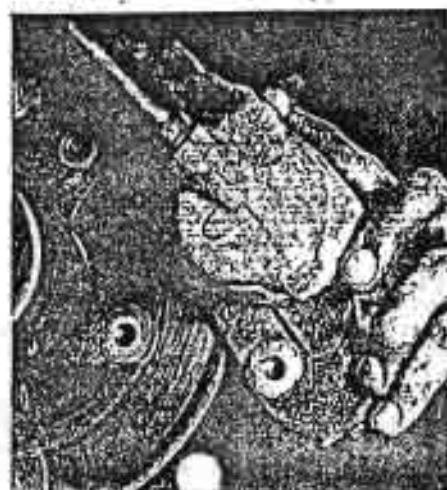
If you have front drum brakes,



Undoing the hub securing nut

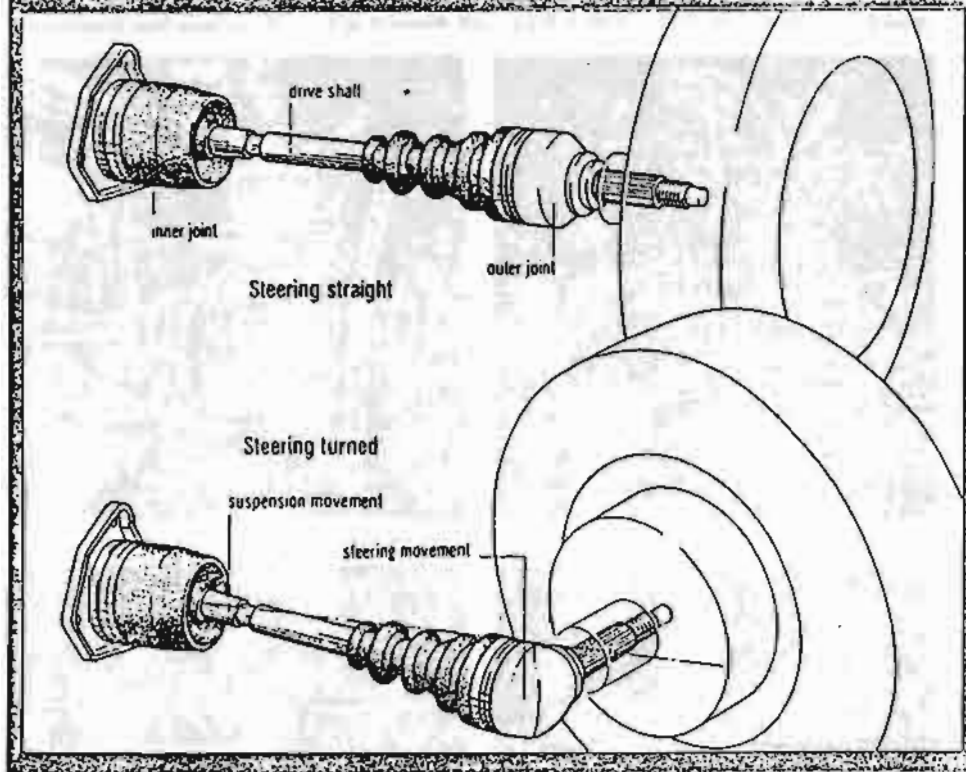


2. Unbolting a suspension ball joint



**FACT FILE**

## Front drive shafts

[illegible]

you will need to take off the hose. Clamp off the hose using a brake hose clamp so that you do not lose too much brake fluid.

The swivel hub assembly will still be connected to the car by the steering and suspension systems. The steering track rod end is connected to the hub by a ball joint. Ideally, you should use a ball joint separator (Fig 4) for this job. It will make the job easier.

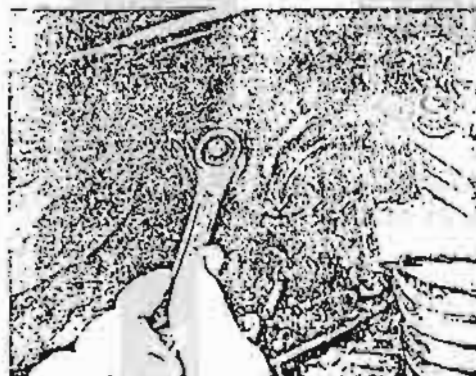
splitting ball joints. Undo the ball joint securing nut and then split the joint with the separator. An alternative method is to use two hammers and hit simultaneously on each side of the joint. Do not hit the threaded end of the bolt through the joint as this will damage it.

Before you unfasten the suspension from the hub, jack up the hub so that its weight is not resting on the suspension.

hub by ball joints, they come apart in the same way as steering ball joints (fig 2). Cars with MacPherson strut front suspension have the strut fastened to the hub by two bolts (see FIY 281 to 290). When you have taken out the bolts holding the suspension and separated the steering ball joint and any suspension ball joints, the outer end of the shaft and the hub will be free to slip out of the axle.

*[Faint handwritten signature]*

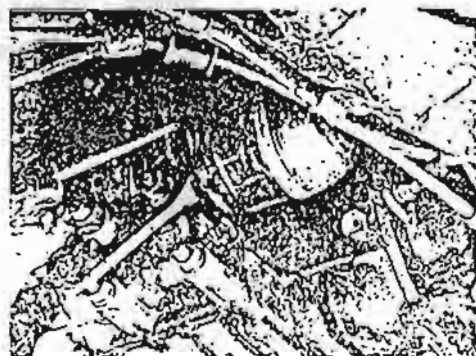
### DISCONNECT THE DRIVESHAFT



1. Undoing not securing U-bolts



## 2. Pulling U-bolt from joint



### 3. Lowering shaft out of gearbox



#### 4. Catching oil as shaft comes free

There are various different ways of holding the driveshaft to the differential and various types of inner joint that you may find. The easiest type of joint to remove is the rubber bushed type of Hardy-Spicer joint. Mark the two flanges of the joint so that you can reassemble them in the same position. Then unfasten the U-bolts which pass through the joint (fig 1). If the car is left in gear, you will find it easier to undo the nuts as the shaft will not turn as you apply force to the spanner. If you have an assistant, he can let the car out of gear while you turn the shaft to the best position for you to get your spanner on to the next nut.

Once you have undone it  
 If you're holding up, here I

If your inner joint is the plain Hardy-Spicer type as found on propeller shafts, you should mark the flange that holds the shaft to the differential and then undo the four bolts.

One kind of constant velocity joint fitted to the inner end of driveshafts is the tripod joint, used by Fiat and Talbot. Other cars use a joint similar to the outer one. In either case the joint will be covered by a rubber boot. The inner end of the shaft may either be splined into the differential or may be bolted to a flange on the side of the differential.

If the shaft is held into the gearbox by splines, you will find that some oil may run out of

lainer handy when you do this job.

If you cannot see any bolts, you should try to pull the shaft free. If your manual shows a circlip at the inner end of the shaft, you will have to lever between the joint and the gearbox to spring the circlip out of the gearbox housing (Fig 3). An alternative fixing method for the inner end of the shaft uses roll pins. Drive out the pins with a drift to free the shaft.

On other designs the inner end of the drive shaft is bolted to a flange on the gearbox. It is best to mark the flanges before you unbolt them so that you can bolt them up again in the same position when the shaft is back on. Take out the



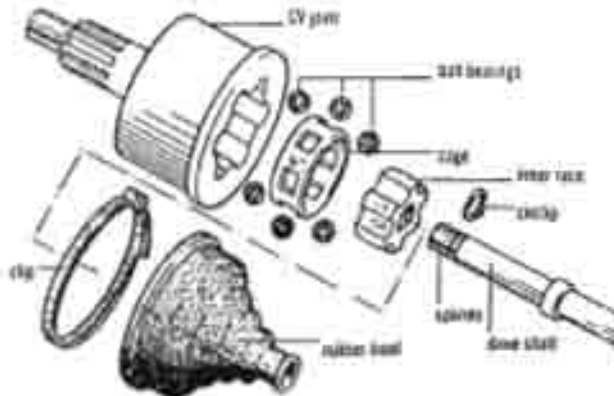
## STEP 3 OVERHAUL CVJ

If the hub is still in place on the end of the driveshaft, hold the hub assembly in a vice and ask an assistant to hold the shaft. Now tap out the end of the shaft using a hammer and a wooden drill (Fig 2).

Now prise open the clip around the CVJ's rubber boot, or cut the wire which holds it. Next, ease the boot away to reveal the joint (Fig 3). The joint needs to come off the shaft for inspection.

Generally, it is not possible to renew parts of the CVJ and any damage means that you will need a whole new joint. The joint is normally held to the shaft by splines and retained by a circlip. You can either release the circlip with circlip pliers then slide the joint off, or simply hold the shaft in a vice and tap the joint with a mallet so that it compresses the circlip and slides off the shaft.

Rotate the inner part of the



1. The components inside a constant velocity joint

joint through 90° and remove each of the balls (Fig 4) noting the order in case they can be reused. Now take out the cage and inner race from inside the joint (Fig 5). Inspect all the balls, the cage and the inner race for any signs of wear. If there is any

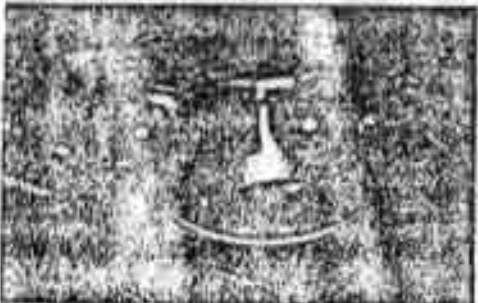
wear, you should fit a new joint. Either reassemble and refit the joint or else use a new one. Pack it with the recommended type of grease for your car. Use a new rubber boot if the old one was worn or damaged, and clip it in place.



2. Drifting shaft out of hub centre



3. Easing boot away from joint

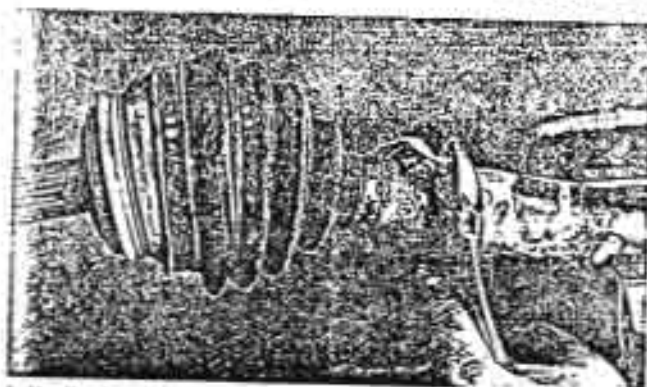


4. Removing balls for inspection



5. Removing cage and inner race

## STEP 4 OVERHAUL REST OF SHAFT



1. Unfitting boot — a split cannot be repaired

The first thing to check is the condition of the rubber boots around the joints — any splits or tears will let the grease deteriorate inside the boots and will allow dirt to get in (Fig 1). Check that any securing clips are in good condition. If you find any splits or loose clips, you should clean out the old grease and pack the joint with new grease — your manual will tell you the correct kind of grease in your joint.

If your shaft has a sliding sleeve, you must take extra care

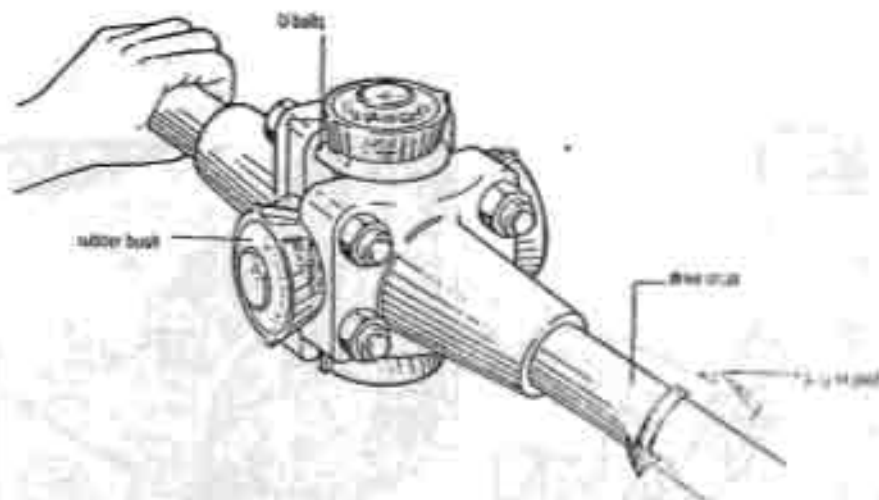
to locate the boot correctly — there is usually a groove machined into the shaft to hold the end of the boot. Use a new clip when you refit the boot, or else secure the boot with two turns of soft wire.

Some kinds of inner joint can be renewed or overhauled. If the inner joint is of the constant velocity 'ball' type, like the outer joint, the same procedure as described in Step 3 applies — again, if the joint is worn, you will have to fit a new one.

If your inner joint is the

tripode type, you can buy a replacement tripode assembly (Fig 2). This consists of a spider fitting which carries the three roller bearings. The spider is held on to the shaft with a circlip. When you are fitting a new tripode joint to a Fiat drive shaft, you need to be particularly sure that the rubber boot is in good condition because if a boot seals the oil inside the gearbox. It is also worth fitting a new oil seal inside the boot to avoid leaks from around the driveshaft. It is a press fit into the boot.

The other two common types of inner joint — the plain Hardy Spicer type and the rubber-bushed Hardy Spicer variety — should also be renewed if there is any sign of stiffness in the joint, or if the bush is breaking down. If there is any oil on the rubber bush, wash it off then examine the bush for any splits in the rubber. If you can prod a screwdriver into the rubber bush, this means that the bush is perishing and must be renewed. Re-assemble the joint then try to turn the two parts of the joint against each other (Fig 2). If you find any play, the joint

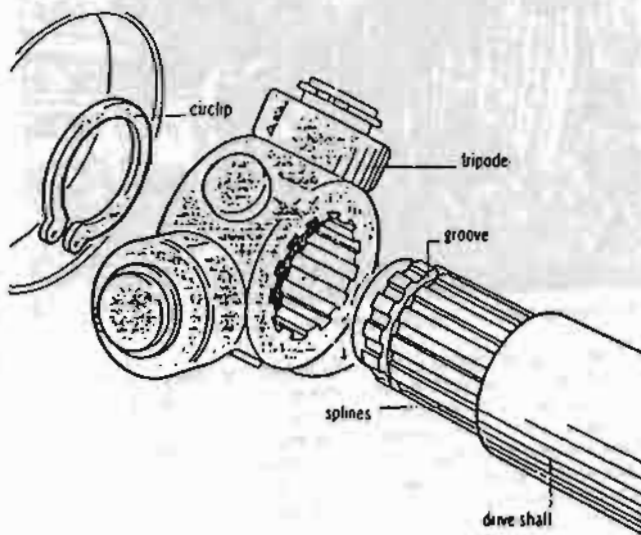


## STEP 4 (cont)

must be renewed.

There is a replacement joint which is made of nylon and uses roller bearings which can be fitted in place of the rubber-bush-type. These nylon joints are more expensive than the rubber ones but last longer. Ifan Hardy Spicer joints can be removed by first taking off the retaining circlips and then holding the shaft in a vice. Now push out or drill off the needle roller cups as described on VWV 231 and 232.

You can press in the new bearing cups with a vice, using a socket as a spacer, and then fit new circlips back in the grooves. Make sure that the bearing cups are pressed fully home and that they are seated squarely in the yokes of the joint, as otherwise there may be tight spots in the joint which will shorten its life.



3. How the tripod joint is fastened to the shaft

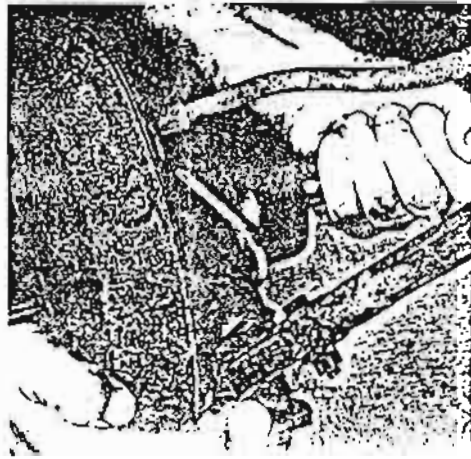
## STEP 5 REFIT SHAFT TO HUB

Once the shaft is reassembled, the next job is to fit it back into the hub. Take care when you refit the shaft or else you may damage the oil seals or let dirt get into the wheel bearings. Clean all the old grease off the

end of the shaft using an old toothbrush to get into the splines, and then smear the splines with new grease.

You can now slide the shaft into the hub. Make sure that the shaft goes in squarely and that

you do not turn over the lips of any oil seals. Once the shaft is fully in, refit the thrust washer and hub nut, then run up the hub nut until it is finger tight. You can only fully tighten it with the car on the ground.



## STEP 6 REFIT DRIVESHAFT ASSEMBLY

When you refit the driveshaft and hub to the car, it is easier to support the hub on a jack so that you are not handling the whole weight. First fit the inner end of the driveshaft to the drive flange or into the differential.

Align any marks that you made when you took the joint apart and bolt the flanges back in place (fig 1). Do not fully tighten the bolts at this stage.

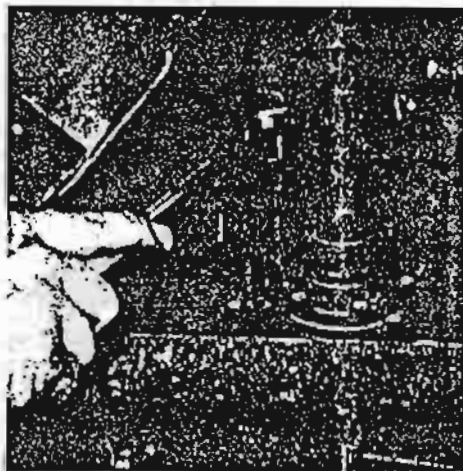
You may have to tap home a shaft that is splined into the differential (fig 2). If you have

trouble, fasten a Jubilee clip around the shaft and use a drift against the clip to tap the shaft home. Drift in new roll pins if your shaft has this fixing.

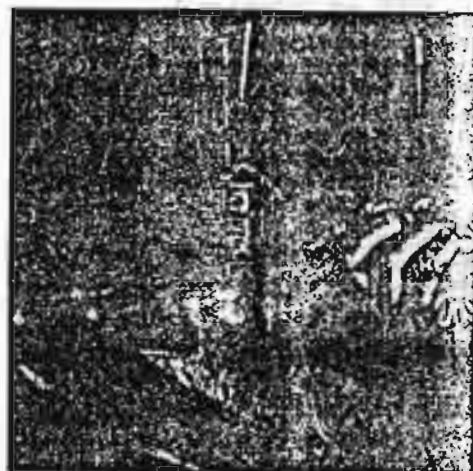
Now reassemble the ball joints to the swivel hub and tighten them fully (fig 3). Bolt back the suspension strut if your car has one. Refit the brake caliper or fasten the brake hose back on. Now bolt the road wheel back on and lower the car to the ground so that the suspension is under load. You can now tighten

the inner joint flange nuts fully. Torque the hub nut to the correct figure (fig 4) and retain it.

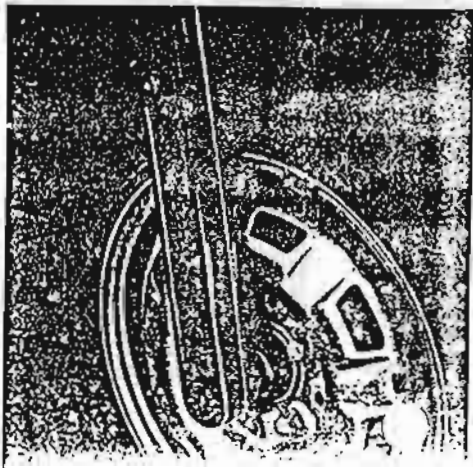
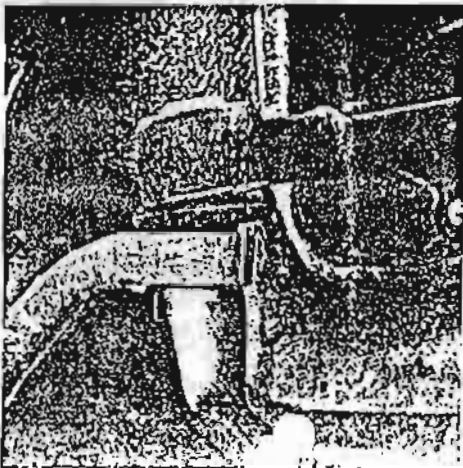
Add some oil to the gearbox if any ran out and bleed the brakes if you disconnected the hose. Make a final check that everything is back in place. On your road test, watch for any vibrations — this may be caused by the flange being bolted in the wrong position. There should not be any rattling from the joints, which should now run smoothly and quietly.



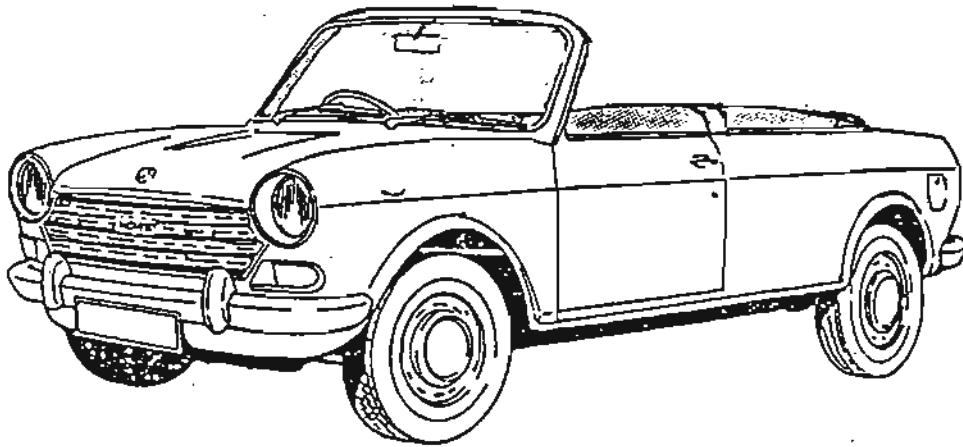
1. Bolting driveshaft back to flange



2. Pushing splined shaft into gearbox



# LANDCRAB



Number 24

Canberra and District Austin 1800 Club

The attendance at the April meeting was average. The past month has seen us recruit two new members from Western Australia and one from the ACT. Please welcome:

Richard and Linda PEDDEL	11 Orme Court Kelmscott WA 6111	(09) 390 8764	2 x MkII Sedans (auto) Austin A70 Hampshire
Jacqui KELLY	29 Haddon Street Hackett ACT 2602	(06) 257 2180	MkI Sedan (auto) MkII Sedan (manual)

Next month our club will be 2 years old. In that time we have seen our numbers grow from an inaugural membership of 14 to a current 45 with much of the membership being from interstate and mainly due to the advertisement of the 'Club Notices' in *Unique Cars*. The monthly turnout of members is average but it would be good to see more faces. I know that, for a couple of our number, the first Monday of the month clashes with other commitments and for this reason perhaps we should look into altering our meetings to the second Monday of the month.

With regard to the newsletter, I am finding it increasingly difficult to meet the monthly deadline as well as finding enough material to fill it. Also, because of our increased numbers, the workload has become heavier. For these reasons, I propose that the newsletter be put out every two months. Remember any contributions — be it technical, general information, parts accessibility, unusual experiences or anything pertaining to the Landcrab — will always be welcome.

Isn't it frustrating, when shopping for replacement plugs, points, etc, in Big W, K-Mart or a motoring accessory shop, to find the 1800 is no longer listed? Nine times out of ten the Landcrab is unlisted in the chart books even when they are available. You need worry no more. The following is a comparison chart showing the makers codes for the various makes of plug, CB points, fanbelt and the like. A good idea would be to copy it out and carry with you in your wallet. No doubt the list can be added to and the club welcomes any further additions or information.

Oil Filter: Unipart/JRA—AYB222, Lucas — FS 510, Fram — PHX, Ryco — Z23 (MkII) R2058P (MkI)

Air Filter: Ryco — Z92, JRA — AYH 262, ??? — CA 675

Thermostat: Power Plus (Big W) — PPWT14A

Fuel Filter: Ryco — Z15KS

Fanbelt: Dunlop — V530 (Auto) V584 (Manual), Dayco — 10A0900c, JRA — 13H503, GKN (Big W) — QV1173RE (Alternator) QV1417RE (Generator)

Spark Plugs: Bosch — W8DC, Champion — N9YC, NGK — BP6ES, KLG — FE55P, Motorcraft — AG32CU, AC — 45XLS

CB Points: Bosch — GL 19, Power Plus (Big W) — PPL19V

Condenser: Bosch — GL103, Power Plus — PPLC103

Rotor Button: Bosch — GL229

Disc Pads: Bendix — DB852

Universal Joints: Repco — KSL4R (Auto) K5A514 (Manual)

Sooner or later the time comes when you have to replace those rubber universal joints in the manual 1800s. Here is a word of warning: When buying new ones examine them carefully and look to see if they have a letter 'P' stamped in the centre. If there is, don't buy them. Those stamped with 'P' are made in India and are of very poor quality, not likely to last more than a week. When Warwick Wright was in Sydney recently he managed to locate 15 new rubber universal joints from Allens Auto Parts in North Sydney. They are priced at \$48 each and they definitely have no 'P' stamped on them.

**Helpful Hint:** Should you experience an exhaust leak around the exhaust clamp and it sounds noisy, first try tightening it up. If this does not rectify the leak, remove the exhaust clamp and place each of the two halves of the inner clamp in a vice and nip them up a bit. Make sure the whole of the clamp is covered. The effect of this is that the 'V' is narrowed a bit (this tends to spread over the years) and, upon reassembly, the gas leak is eliminated. [This tip was sent in by Les Lenny.]

When visiting Les in Bundanoon recently I learnt he possessed a BMC Parts Manual for the Mkl. Les kindly loaned the manual to the club and it has been photocopied. This manual shows exploded drawings of every component of the Mkl 1800 and identification of part numbers. These drawings are invaluable when dismantling and repairing any part of the car as they show the order of reassembly, simplifying the task enormously. Further individual photocopies are available to members on request.

Does anyone have the answer to renewing or repairing the vinyl top on the dashboard apart from the invariable piece of carpet or similar? New replacements are no longer available and, even if one can be had, they are a cow of a job to fit — ever tried it? There must be a solution and perhaps someone in the club has the answer.

Two new snippets of information came my way last month:

1. How can you tell a late model Mkl from all other Mkls? Answer: The front indicator repeater light on the front mudguard is located beneath the waistline whereas the former are mounted above.
2. Did you know when you sit in the driver's seat at night and the boot is open, a reflection of the boot light is seen on the rear window?

During a recent visit to West Australia Pat Farrell called in to see our sandgroper cousins Ken and Paula Lyle. Ken is in the process of renting a workshop with the intention of going into business repairing and overhauling BMC vehicles. He sounds very knowledgeable and we wish him every success. Pat also came across a bloke in Cowaramup in the Margaret River area who has the largest collection of Austin 1800s he has ever seen — add to that four utilities, an immaculate Princess, a 3-litre model and a Metro. Pat spent a very enjoyable afternoon with Loui and had to tear himself away. Pat gave me his address and I have sent a couple of newsletters together with an application form to join our club. No doubt he will join us. [Incidentally, he calls his home Austin House.]

Pat Farrell has supplied me with a list of parts he wants from the UK. Should anyone else require parts, please let me know as soon as possible in order to send off a club order.

Our current balance of club funds stands at \$70.28 and now would be a good time to ask for renewal of club subscriptions. Fees are \$10 per family (the same as last year which I think represents good value). Newsletter production, photocopying costs, postage and associated costs are kept to the absolute minimum. Renewal is due 1 July and early remittance would be appreciated. A current up-to-date membership list will be sent to all financial members with the July newsletter.

Our technical topic this month covers a swivel pin overhaul and a drawing/suggestion for the replacement of the rear slipflex bearing courtesy of the AMVC (VIC). The cover picture of a convertible Landcrab was supplied by Peter Jones.

Our next meeting will be on Monday, 7 May, at 7.30 pm at the Canberra Yacht Club.

Remember ... You're travelling First Class.

Mick

## FOR SALE:

MkI Sedan: White, good condition, good tyres with 6 months rego. Spare motor (in need of clutch) goes with car along with numerous spares. \$1500. Contact John Johnson, telephone (06) 288 3791.

1968 MkII (changeover model) Sedan: Beige, 4 new tyres, sunvisor, headrests, weathershield, rego to 18 August. \$1500. Contact George Parker, telephone (06) 254 1253.

1970 MkII Manual Sedan: Pale blue with Ivory interior, pushbutton radio, new tyres, towbar, weathershield, new gearchange cables, very good motor, 10 months rego. \$1400. Contact Alain Rohan, telephone (06) 285 2936.

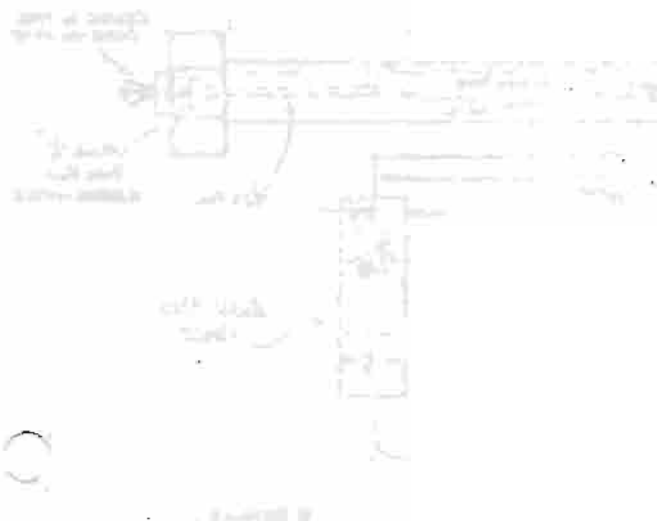
MkI Manual: Offwhite, red seats, 10 months NSW rego, 56 000 miles. \$1000. Contact Peter Dobson, telephone (02) 525 0268 (Caringbah).

MkI Manual: Green with green interior, good condition, engine out and needs new clutch. \$250 to club member. Contact Brian Thomas, telephone (06) 259 2286 [Mobile Pager 288 1111 10772].

Les Lenny is wrecking his MkI utility. Telephone (048) 836 536.

## SWAP:

1800 MkI parts list for 1800 MkII. Call Peter Jones, telephone (046) 282 094.



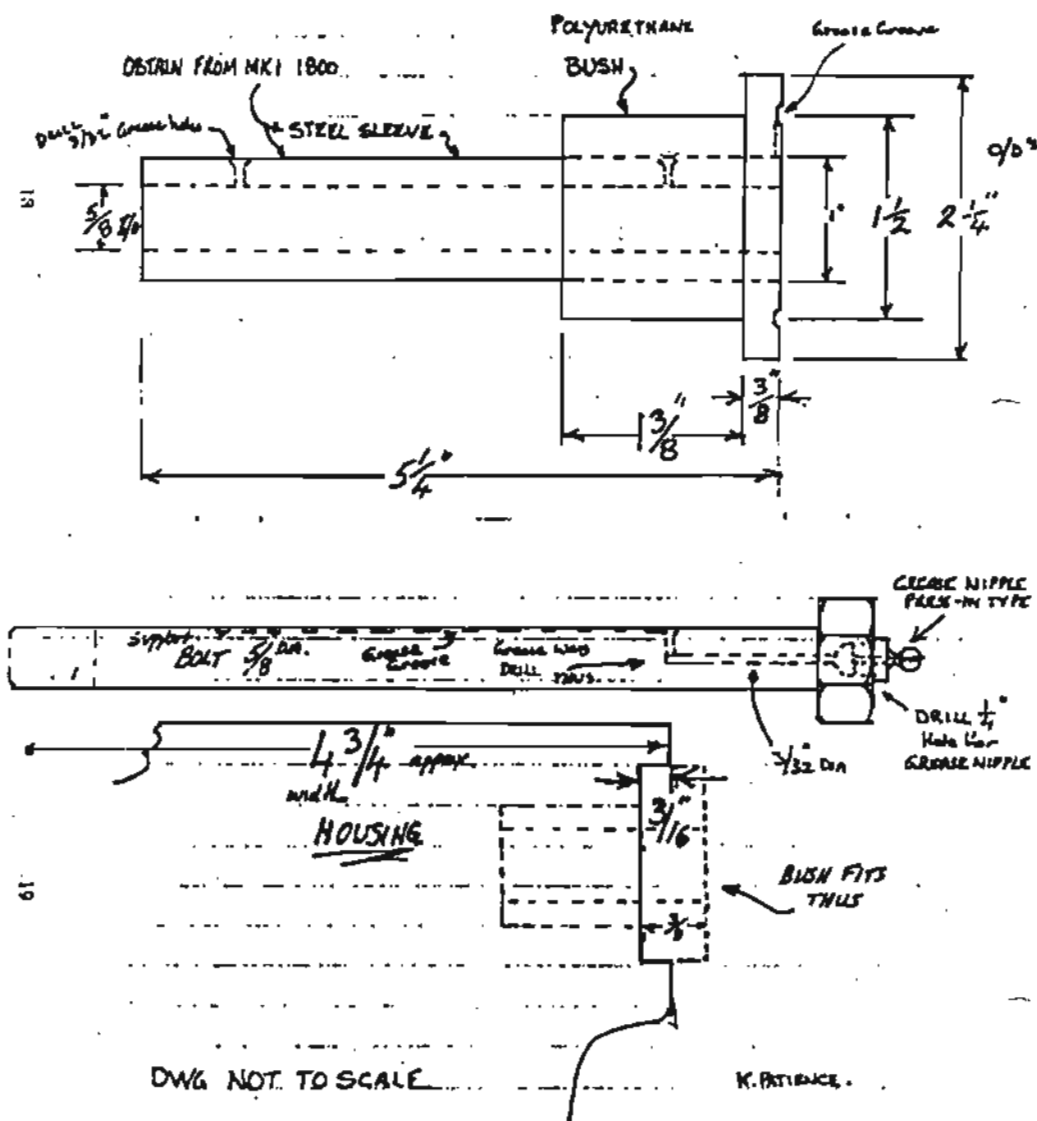


# TECHNICAL ARTICLE

SUGGESTION FOR:-

AUSTIN 1800 "REAR SLIPFLEX BUSH" REPLACEMENT DIM'S.

MATERIAL: POLYURETHANE 90 DUROMETER



## SUGGESTION FOR REPLACEMENT OF REAR SUSPENSION BEARINGS OF AUSTIN 1800 MKII SLIPFLEX BEARING UNIT (TASMAN'S + KIMBERLEY'S ALSO)

When these bearing + bush assemblies finally expire-wear out replacement units are very expensive and limited in stocks. The following drawing is presented as an alternative to the original concept. (The original concept is a rubber bush with a Glacier DX series bearing moulded within and contains dimples for retention of lubrication.)

The alternative concept uses polyurethane (Durometer 90) machined to size as detailed in the drawing, complete with grease grooves for lubrication.

Polyurethane makes a great bearing where high pressure/velocity extremes are present and needs only minimal lubrication. By using components from the MK I Austin 1800 - bearing sleeve and drilling holes to allow entry of grease, the concept is complete. The retaining bolt can be modified to take a press-in type of grease nipple-for periodic grease application.

The dimensions are given in imperial sizes as the Austin was made to these dimensions, and also my metric device was not available. I have made up a set to the drawing but cannot verify performance as many months or years would need to pass to observe any tendency to failure. I believe the polyurethane bushes will outlast the original component. The original failed only after 19 years of hard wear and tear.

KEN PATIENCE

NOTE: a slim washer may be needed to adjust for play/clearance of chassis support unit, at each side.



## FIX IT YOURSELF

# BL swivel pin overhaul

Renewing the swivel pins on a BL front wheel drive car is quite easy, and can usually be done without special tools. But if you need these tools, you can hire them

### When to do this job

As part of your preparation for the annual roadworthiness test  
If your front suspension bangs over bumps  
If the steering and roadholding are vague

### What this job involves

Removing complete swivel hub from car (maybe)  
Removing the old joint  
Fitting and adjusting new joint  
Reassembling, and bleeding the brakes (maybe)

### Related jobs in this handbook

Replacing track rod ends  
Fitting new wheel bearings  
Fitting new brake shoes  
Save money brake service  
Please see Index for page numbers

### To do this job

**Tools:** Spanners; socket set; spanner or socket to fit swivel pin; two jacks; long metal bar or strong piece of wood; feeler gauges; large ball joint separator; hammer and wood block or soft-faced mallet; wire brush; self-locking wrench  
**Materials:** Grease; grinding paste (maybe); penetrating oil; new joint or repair kit  
**Time:** About three hours per side if your car has adjustable joints. One hour per joint, provided that you have a good spanner, on one-piece joints  
**Degree of difficulty:** Not hard, provided that you understand the shimming procedure. The hub nuts and taper joints are likely to be very tight

### If you have the job professionally done . . .

Have you now been issued with a pass for the annual roadworthiness test? Does the car drive better now, with less noise from the front?

## STEP 1

## FIND THE WEAR

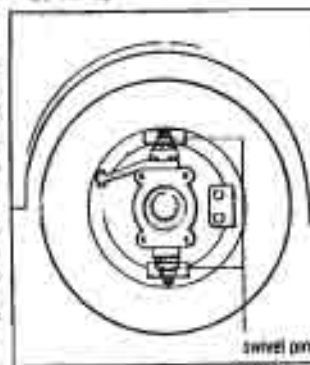
### FACT FILE

#### Swivel pins

The type of swivel pin joint fitted to Leyland front wheel drive cars such as the Mini, 1100/1300 and Allegro, is a multi-piece unit which screws on to the top and bottom parts of the swivel hub.

In order to cope with the slightly different sizes that arise during the manufacturing process, this type of joint has a set of shims that sit between the domed housing and the lock-washer to adjust the amount of force or pre-load that is applied to the swivel pin. This joint is not a sealed for life unit and it tends to wear out quite quickly, especially if it is not regularly greased. You can adjust these joints for wear by removing one or more shims, which allows you to tighten up the domed housing a little to take up the wear. You only need to replace these joints if the swivel pin and the seal show signs of damage.

The joints fitted to the 1800, the 2200, the Princess and the Ambassador all come as a one-piece unit with a threaded body which has the flats for a socket machined on it. The swivel end of the joint consists of a ball enclosed in a plastic bearing.



When the joint is fitted the action of screwing in the housing pushes the bearing into place and then compresses the bearing plastic around the ball. This takes up any play and precise adjustment is made by fitting a set of shims between the housing and the hub.

The joint fitted to the Metro is similar in appearance to that on the 1800/2200 and the Princess but it has a solid end instead of a semi-flexible one — the pin pre-load is set at the factory.

The final type of joint is fitted to the Maxi. Like the Metro, there is no need for shim adjustment, but instead of screwing into place, it is held to the swivel hub by two bolts.

None of these one-piece joints can be adjusted to compensate for wear — if you find any damage there is no alternative to fitting a new one.

The swivel pins in your front suspension connect the swivel hub to the front suspension arms and allow for the up and down and side to side movement of the swivel hub. A lot of strain is placed on these components and if they wear it can make your car's handling vague. The first indication that the swivel pins are worn is general slack feeling in the front suspension and at the steering. However, this can also be due to wear in other components, but you should be able to pinpoint the fault by doing the test in this Step. Another symptom of worn swivels is excessive noise coming from the front suspension. A knocking noise over bumps is usually due to the top swivel pin being hammered up into its seating and this indicates that the swivel pins definitely need attention. Finally, if the swivel pins are excessively worn, the swivel hub and tyre

angle — this will cause uneven tyre wear.

If you suspect that the swivels are worn, you can check them quite simply. Jack up each front wheel in turn, then get an assistant to lever with a long bar between the ground and the bottom of the tyre (Fig 1) while you look inside the wheel arch. You will be able to see and hear the swivel hub moving relative



to the suspension arms if there is any wear. More than 1/16 in (1 mm) of movement means that the swivel pins need looking at. If you cannot see any movement in the swivel pins but are sure that there is wear in your suspension, the wear is probably in the inner suspension pivots at the end of the suspension arms, or possibly in the track rod end or the wheel bearings (see FTY 266).

If you are going to change the pins, the procedure depends on the car you have. When you are dealing with a Mini, an 1100/1300 or an Allegro, you must remove the whole of the swivel hub assembly from the car to service the swivel pins.

On the other cars it is possible to do the job with the hub still in the car, provided that you have enough room to get at the pin. Renewing pins on these cars is covered in Step 5 (Maxi) and Step 7 (Princess, Ambassador).

## STEP 2

## REMOVE THE SWIVEL HUB

Begin by removing the hub cap, then find the split pin which goes through the centre of the wheel hub. Using pliers, bend the ends of the pin straight, and pull it out of the castellated nut.

Now find a socket to fit the castellated nut. Do not try to use an adjustable spanner or a pair of Stillsons on this nut — it is done up very tightly and you will probably end up wrecking the nut.

Get a helper to apply the foot brakes, then undo the nut using your longest T-bar (fig 2). If this will not shift the nut, try using your feet to turn the T-bar, or extend its length using a piece of pipe. This will give you extra leverage. You may find that it helps to give the end of the T-bar a good thump with a heavy hammer while applying pressure — this will help to jolt the nut loose.

Once the nut is undone, loosen the wheel nuts. If you are working on a Mini, turn the steering on to full lock and find the rubber rebound stop inside the wheel arch. This is a rubber pad held to a ledge on the inner wing by a Phillips screw.

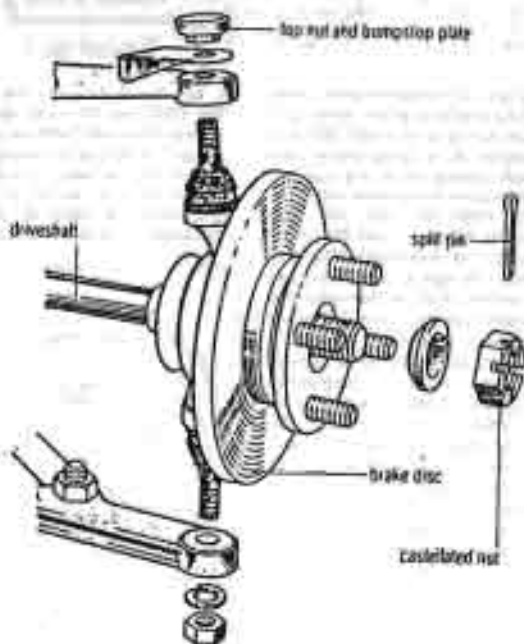
Undo the screw, and pull the stop free. Now get a piece of wood roughly the same thickness as the rebound stop, and

1. How the swivel hub fits to driveshaft and suspension

wedge it in — in place of the rebound stop — between the inner wing and upper suspension arm. When you raise the car, the upper arm will be unable to drop fully and this will give you enough room to get the swivel hub out between the two suspension arms. On the 1100/

1300 and Allegro, you cannot do this, so see the Tip — One side up FTY 8-12.

On all cars, jack the car up and support it under the front subframe or bodywork. Remove the wheel and take the weight of the suspension and swivel hub on a jack.



2. Undoing castellated hub nut



3. Removing swivel pin top nut/bumpstop



4. Breaking taper joint — use plenty of force



5. Pulling hub off — keep driveshaft supported

Now turn to the brakes. If they are discs, unbolt the caliper from the back of the swivel hub and tie it up to a convenient point with string. Now carefully pull off the brake disc. When you are dealing with drums, line the jaws of a self-locking wrench with an old piece of heater hose (or use a proper hose clamp) and clamp off the flexible brake hose to minimize the loss of brake fluid later. Loosen the hose where it enters the brake backplate.

Undo the track rod end nut and separate the ball joint from the swivel hub using a ball joint separator. Now move on to the nuts that hold the swivel pins on to the suspension arms. The bottom one is a plain nut, but on the 1100/1300 the top one incorporates a metal disc on top which contacts the bumpstop when the suspension is fully compressed. On the 1100 the top nut is locked in place by a tab washer, so it must be removed by a screwdriver.

Now use a good ball joint separator to break the joint taper on each pin (fig 4). Do the bottom joint first. These pins are very tight and will take a lot of effort to free. If you are using a double arm separator and the pin shows no signs of moving try hitting the separator with a hammer to shock the top of the pin

with a hammer and screwdriver or cold chisel.

Now undo the swivel nuts (fig 3) — on the 1100/1300 the design of the top swivel means that you cannot use a socket, so you must use an open ended spanner instead. If the nut is so tight that you cannot remove it, then try using Mole grips to twist the bumpstop plate free of the nut so you can then use a socket in the normal way.

If you are going to fit new swivel pins, check if the kit includes new top nuts and bumpstop plates — if not, or if you are just adjusting the old joints, get new ones from your Austin Rover dealer.

Now use a good ball joint separator to break the joint taper on each pin (fig 4). Do the bottom joint first. These pins are very tight and will take a lot of effort to free. If you are using a double arm separator and the pin shows no signs of moving try hitting the separator with a hammer to shock the top of the pin

— this should shock the joint free.

Pull the swivel hub down so that the top pin clears its hole in the upper suspension arm; then lift the hub up to release the lower pin. Now pull the swivel hub assembly off the driveshaft. It should pull easily off the constant velocity joint, but if it proves stubborn, tap the end of the driveshaft that sticks into the hub with a soft-faced mallet or a hammer cushioned by a piece of wood.

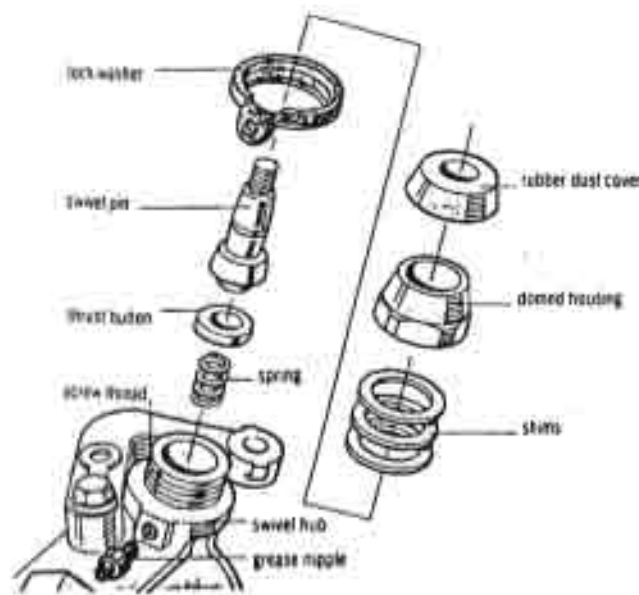
As you pull the swivel hub from the car, get a friend to support the driveshaft (fig 5) — do not let it fall or it may damage the constant velocity joint or gear. Lower the driveshaft so that it rests on the lower suspension arm.

If you are dealing with drum brakes, detach the flexible hose by turning the whole swivel hub assembly until the hose screws out of the brake cylinder. Cover the end of the hose with plastic bag.

## STEP 2 (cont.)



# STEP 3 REMOVE ADJUSTABLE SWIVEL PIN



1. Swivel pin fits to thread on the swivel hub

**TIP**

## Smooth ride

The surface of a new swivel pin is not perfectly smooth, and the high spots soon get worn off in use, so the joint rapidly becomes slack. You can avoid this if you grind off the high spots with fine grinding paste. Put a little of the paste in the hub and move the swivel in all directions for five minutes. Then rinse off all traces of the grinding paste with paraffin.

In most cases you can take up the slack in the swivel pins, and do not have to fit any new parts. However, you must check all the parts over once dismantled, and be prepared to fit new bits if necessary. Do not risk refitting damaged parts.

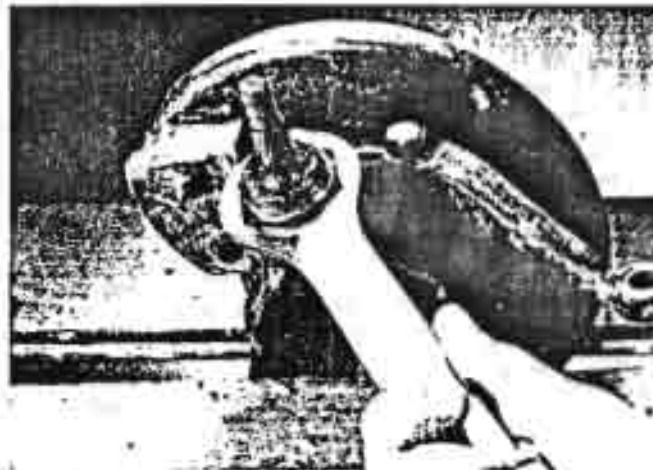
Clamp the swivel hub in a vice, or ponable workbench or get an assistant to hold it down on a firm work surface. Arrange it so that the top swivel pin is pointing upwards. Now pull the rubber dust cover off (fig 2).

The domed pin housing is held in place by a locking tab washer, so first use a hammer and cold chisel to knock back the locking tabs (fig 3) taking care not to damage the swivel hub. Although a special socket is available to fit the housing you can manage by using a suitable spanner or an adjustable wrench (fig 4).

Undo the housing, and lift it off along with the pin (fig 5). Then remove the shims, and the thrust button (fig 6). Put all the parts to one side in order.

Now undo the lower pin in the same way — in some cases there is a thrust spring beneath the pin seat. On the 1100/1300 and Allegro the top and bottom pins are of different thicknesses so take care not to muddle the parts.

Check each joint carefully for wear, starting with the swivel



4. Undoing housing using special spanner



5. Pulling off housing and pin



6. Removing thrust button from swivel hub



7. Removing grease nipple and lockwasher



1. Pulling off rubber dust cover



2. Knocking back locking tabs

pin. On the Mini and 1100/1300, the bottom of the pin should be flat, and the rest perfectly round. On the Allegro, the end is mushroom shaped, but it should still be unworn.

If the pin surface has pits, ridges or rust on it then you must get new pins. If no wear is visible, revolve the end of the pin between your fingers — you may be able to feel ridges or wear that you cannot see. Check the domed housing and thrust button for similar damage, and make sure that the thrust spring is not broken.

OK! FIX IT YOURSELF

If you find even the slightest trace of wear get a repair kit — do not try to refit the old components. It could be disastrous if a swivel pin fails suddenly as you would lose control of the car. But if the parts appear unworn, you can reassemble and adjust them.

Before you go any further, unscrew the grease nipples from the swivel hub and remove the lockwashers (fig 7). Check the nipples are clear by pumping grease through with a grease gun. If a nipple is blocked soak it in petrol and try

again. If the nipple is still blocked renew it, and clean off the parts that you are going to reuse with a degreaser or paraffin. Do not forget to clear out the recesses in the swivel hub where the thrust spring fits. Dry all the parts with a clean non-fluffy rag.

You are now ready to refit the old pins or fit new ones, with the technique used depending on the car — if fitting Mini screw pins, see Step 4. The refitting procedure for the 1100/1300 and Allegro is covered in Alternative Step 4.

lay the lockwasher over the threads on the swivel hub and screw the grease nipple into place so the lockwasher cannot move. If you are fitting a repair kit, match the new swivel pin to its housing using the Tip — Smooth ride. FIY 837. Next take all the shims supplied and place them on the lockwasher.

If you are reusing an old joint, refit all the old shims except for one of the thinner ones. Thread the swivel pin through the domed housing, lay the thrust button in the recess in the top of the swivel hub without the spring, and screw the domed

housing down on to the swivel hub, using just two fingers on the spanner so that you do not overtighten it.

Next, check how tight the swivel pin is. At this stage, it will probably be very loose if you are fitting new parts. Undo the domed nut again and take out one or two thin shims according to how tight the joint was. Tighten the domed housing down again to the same tightness and see how tight the swivel pin is now. Repeat this trial and error process until the swivel pin will move over its full movement, but with a slight

resistance (fig 2). Do not fit the joint so tight that you have to use force to move the swivel pin, or the steering will be tight.

When you have got the adjustment right, take the joint apart again, fit the thrust spring and grease all the parts before you put the joint back together again and tighten down the domed housing exactly as before. Make sure that the swivel pin still moves easily with only a little resistance and then bend the edges of the lockwasher up around the flats of the domed housing so that it cannot work loose.

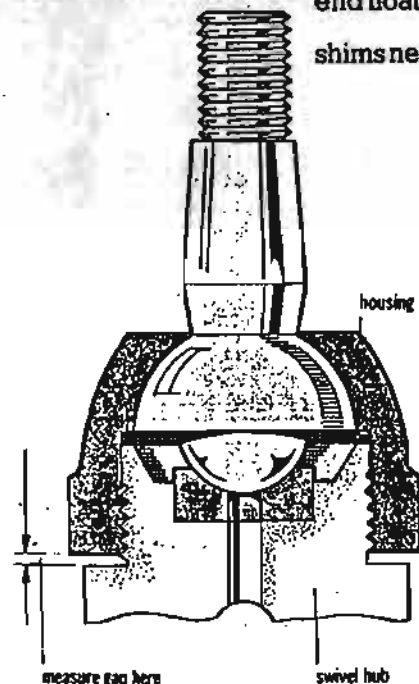
## ALTERNATIVE 4 | REFIT 1100/1300/ALLEGRO PIN

**1100/1300**  
measured gap ..... 0.068 in.  
minus  
lockwasher  
thickness ..... 0.036 in.  
shims needed ..... 0.032 in.

**Allegro**  
measured gap ..... 0.068 in.  
minus  
lockwasher  
thickness ..... 0.036 in.  
plus  
end float ..... 0.003 in.  
shims needed ..... 0.035 in.



2. Fitting correct set of shims



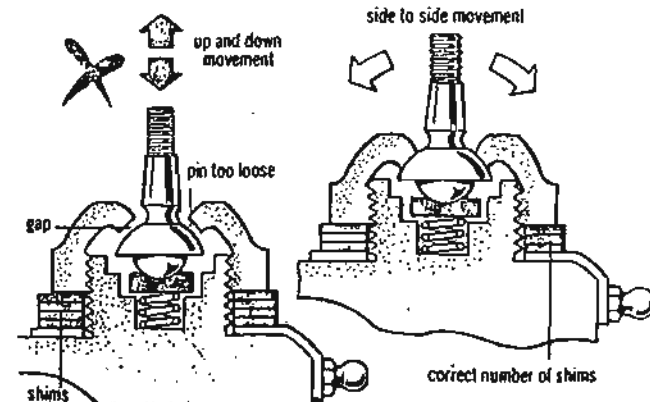
1. Measure gap here then work out shim thickness



3. Bending over the lockwasher

FIX IT YOURSELF 839

1. Typical swivel pin kit



2. Swivel pin correctly set (right) and too loose (left)

## ALTERNATIVE 4 (cont.)

Begin by fitting the thrust button for the upper pin into its recess in the swivel hub. Fit the top swivel pin (the thicker one) to its domed seating then screw it into place on the swivel hub. Leave out the lockwasher for the moment. Tighten the housing down so that there is no play in the pin, while allowing it to move without too much resistance.

Now measure the gap between the housing and the hub (fig 1) using feeler gauges and make a note of the measurement. Subtract 0.036 in. (0.91 mm) from the measured figure — this is the thickness of the lockwasher — to give the thickness needed for the shim pack. Then, on the Allegro only, add 0.003 in. (0.076 mm) to the figure — this gives the swivel pin a slight end float. Dismantle the joint and fit the lockwasher to the hub. Screw the grease nipple into place, making sure it holds the lockwasher in place. Assemble a pack of shims to the required thickness and lay them on the lockwasher (fig 2). Grease the swivel pin, housing and thrust button with high-melting-point grease. Fit the thrust button, followed by the swivel pin and housing, on the shim pack and lockwasher.

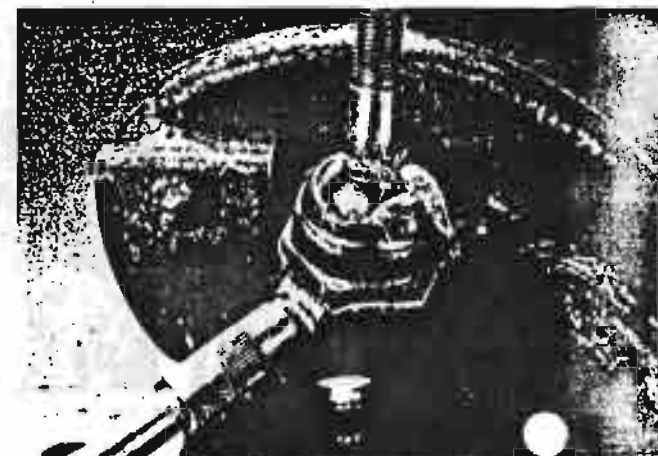
Tighten the housing down so that the pin moves easily, but without excessive play.

Bend over the edges of the lockwasher with a hammer or pliers (fig 3) — do this all around the housing so that it is securely held on all flats.

Now follow the same procedure for adjusting and fitting the lower pin. When measuring the gap between the housing and the swivel hub, leave the thrust spring (if fitted) out as this will give a false reading. Remember to fit the thrust

spring when reassembling.

Finally, pump some high-melting point grease into the joint until it oozes from around the pin (fig 4). Carry on pumping in grease while rotating the swivel pin with your fingers — this ensures that the joint is fully greased. Then fit the dust cover over the top — even if you are refitting an old joint, fit new covers which you can get from your dealer or a good motor factor. They are quite cheap and will ensure that the joint is well protected.

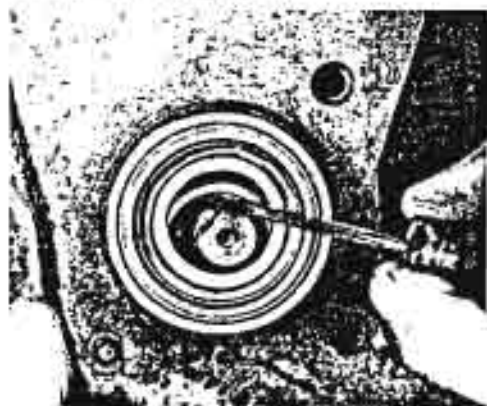


4. Greasing the joint using a grease gun

840 FIX IT YOURSELF



## STEP 5 REFIT SWIVEL HUB



1. Refitting hub — holding spacer ring up



2. Refitting cone-shaped washer to hub

First make sure that the hub is the right way up, then fit it over the constant velocity joint. On cars with drum brakes, refit the brake hose, not forgetting the brass sealing washer, and turn the hub round to screw the hose into place. Tighten the hose fixing up. The central spacer between the inner and outer wheel bearings may get in the way as you fit the hub, so use a screwdriver to hold it up (Fig 1).

Once the hub is on, drop the lower swivel pin through its eye in the suspension arm, and loosely refit the nut. Now put a jack under the lower arm and lift the whole assembly making sure that the upper swivel pin

also goes into the top suspension arm. Refit the top nut/bumpstop plate.

Now use a torque wrench to do up the swivel pin nuts to their correct torques. The upper one should be done up with a torque spanner, but you can manage by doing it up really tight with an ordinary one. If the swivel turns as you do up the nut, see Tip — Force fit. FTY 211.

Refit the brake disc followed by the cone-shaped washer (Fig 2). If this washer was badly grooved fit a new one, or the wheel bearings will not be properly adjusted when you torque up the hub nut. Refit the castellated nut and tighten it up

as far as possible.

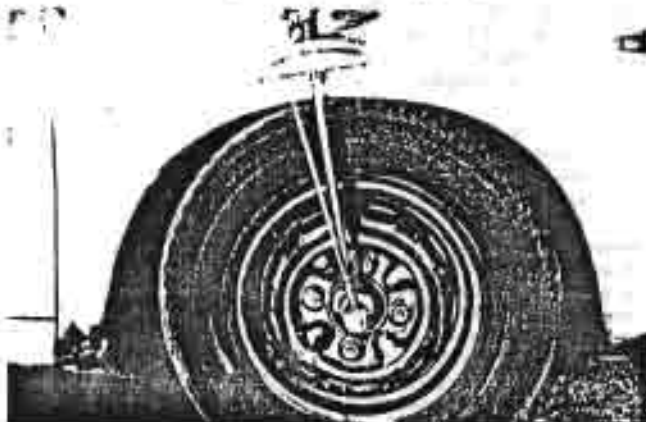
Fit the track rod end through the steering arm on the swivel hub and do up the nut to the correct torque. Bolt the brake caliper on (Fig 3). Ensure that the brake hose is not twisted.

Now refit the wheel and lower the car to the ground, then tighten the castellated hub nut to the correct torque (Fig 4). If the holes for the split pin do not line up, tighten the nut further. Fit a new split pin, and bend over the ends.

On cars with drum brakes, the final job is to bleed the braker (see FTY 119). Road test the car to make sure that the brakes work properly.



3. Tightening hub nut — keep on 'til fully tight



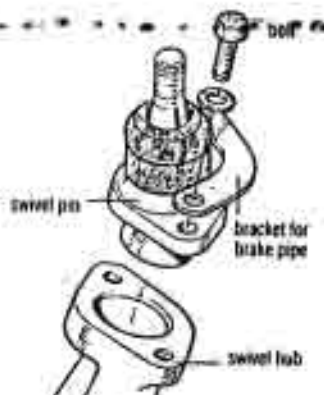
4. Tightening hub nut — keep on 'til fully tight

## STEP 6 FIT A NEW MAXI JOINT

The swivel pins on the Maxi are very easy to replace as there are no adjusting shims to bother about — provided that you deal with the joints one at a time, you can avoid touching the drive shaft or the brakes at all. Begin by wedging the top suspension arm in place as described in Step 2. Then jack the car up and remove the wheel.

Each joint is held in place on the swivel hub by two bolts (Fig 1). Clean up the area around the bolts with a wire brush and give the bolts a squirt of a penetrating fluid.

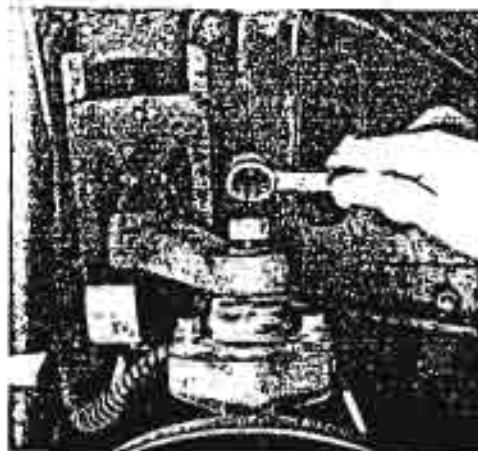
If you are dealing with the top



1. Swivel pin is bolted on



2. Loosening bolts to hub



3. Undoing the swivel pin nut — it may be tight



4. Lifting out joint — note brake pipe bracket

### TIP

#### One side up

If you cannot get the two suspension arms far enough apart to pull the swivel hub free, jack up the rear wheel on the same side of the car as you are working on.

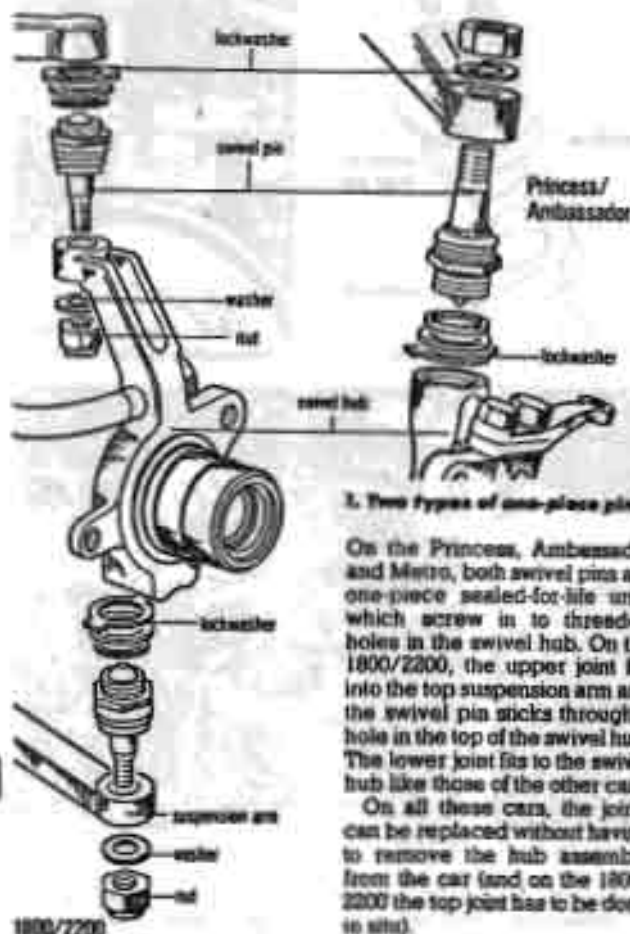
Get an assistant to pull down on the rear wheel, while you push the top suspension arm up. This will not work on the Metro which has no connection from front to rear.

joint first loosen the two bolts holding the swivel pin body to the swivel hub using a spanner (Fig 2). Then take off the nut that holds the swivel pin in to the top suspension arm (Fig 3). Now break the joint between the swivel pin and the suspension arm — the swivel hub will drop a little, giving you enough room to separate the swivel pin from the eye of the suspension arm. If necessary, lever the lower suspension arm down a little to give you more room.

With the swivel hub leaning outwards, you have just enough room to undo the bolts the rest of the way. Carefully push back

the bracket for the brake pipe and remove the old joint (Fig 4). Put the new joint in place in the hub and re-fit the plate and the bolts. Tighten the bolts up finger tight — you can do them up fully once the hub is reconnected. Now push the lower suspension arm up so that the swivel pin goes up into the eye of the suspension arm. Fit the washer and nut supplied with the new joint to draw the pin fully into the suspension arm — do the nut up tight. Finally, use your ring spanner to fully tighten the bolts. Follow the same procedure for changing the lower joint.

## STEP 7 RENEW A ONE-PIECE JOINT



1. Two types of one-piece pin

On the Princess, Ambassador and Metro, both swivel pins are one-piece sealed-for-life units which screw in to threaded holes in the swivel hub. On the 1800/2200, the upper joint fits into the top suspension arm and the swivel pin sticks through a hole in the top of the swivel hub. The lower joint fits to the swivel hub like those of the other cars.

On all these cars, the joints can be replaced without having to remove the hub assembly from the car (and on the 1800/2200 the top joint has to be done in situ).



2. Undoing self-locking nut

The main difficulty in changing these joints is that the spanner fits on the housing of the joint are very narrow so that it is difficult to use an adjustable spanner to undo the joint. Also, it is impossible to use an ordinary spanner because the joint is too deep for it to reach. Your best bet is to buy a suitable, good quality box spanner to remove it, or alternatively you can try to borrow, hire or buy one of the sockets made specially for these joints.

When you are doing both upper and lower swivel pins, do



3. Breaking the swivel pin taper joint



4. Undoing swivel pin with special socket

## STEP 8

them one at a time so that you can leave the brake hose and driveshaft still attached to the swivel hub.

To do the top joint, begin by turning the steering on to full lock. On the Metro, undo the screw holding the lower bump rubber in place. On the Princess/Ambassador and 1800/2200 leave it in place.

Now jam a piece of wood in between the upper suspension arm and the subframe or bump rubber. Alternatively, use the Tip — One side up.

Jack the car up and support it under the bodywork. Remove the wheel and put a jack under the lower suspension arm to take the weight.

Undo the self-locking nut from the top swivel pin — on the Princess/Ambassador and Metro you can do this with a socket, but on the 1800/2200 the nut is hidden behind the axle assembly. Here you must use a spanner (fig 2). Now use a ball joint separator to break the taper joint of the pin (fig 3). Lower the jack until you can withdraw the swivel pin from the eye on the suspension arm or swivel hub.

Use a cold chisel and hammer to knock back the tabs on the lockwasher, then use your box spanner or socket to unscrew the old joint (fig 4) — remove the shims and lockwasher lined under the joint.

Use a small wire brush to make sure that the threads in the swivel hub or suspension arm are clean. Then on the 1800/2200 and Princess/Ambassador only, screw the new joint into place without its lockwasher or shims. Tighten it down until the swivel pin just loses its free play. Do not go so far that the pin becomes difficult to move. Now use feeler gauges to measure the gap between the swivel pin housing and the hub or suspension arm (fig 5). If the measurement, then, is the thickness of the lock washer



5. Measure gap at point shown, then work out shims needed

(0.036 in.) from it. Then on the Princess/Ambassador only, add a further 0.009-0.013 in. to allow for the swivel pin end float — there is no end float on the 1800/2200.

The shims are available in five thicknesses 0.002 in., 0.003 in., 0.005 in., 0.010 in., 0.030 in. Lay out the shims from the kit so that you get five piles of them — you should be able to work out by eye which are which size. Select the shims to give the closest thickness to the one you have calculated.

Take the joint out again, and refit it together with the lockwasher and shims.

On the Metro only, smear a little thread locking fluid to the joint housing. Screw the joint down and do it up to the right torque — if you do not have a torque wrench, just tighten it up firmly. Lock the joint in place by bending over the lockwasher tabs. Use the jack to raise the lower suspension arm until the upper swivel pin fits into its hole. Fit the new washer and self-locking nut supplied in the kit — if the joint turns while you do up the nut see Tip FTY 211.

When you come to do the lower joint, you may find that you cannot get the lower arm

1800/2200  
measured gap .... 0.068 in.  
minus  
lockwasher  
thickness ..... 0.036 in.

shims needed ..... 0.032 in.

Princess/Ambassador  
measured gap .... 0.068 in.  
minus  
lockwasher  
thickness ..... 0.036 in.  
plus  
end float (eg) ..... 0.010 in.

shims needed ..... 0.042 in.

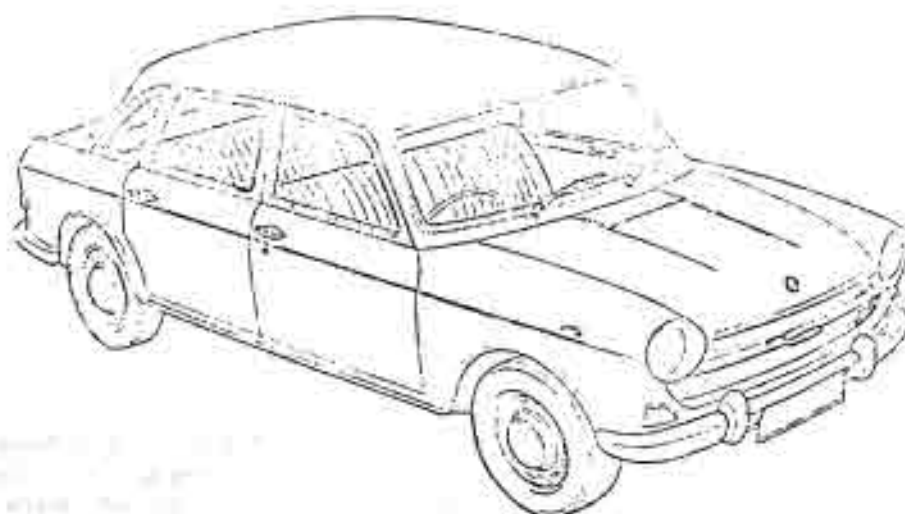
down enough to get the pin out of the eye. On the 1800 you get around this problem by undoing the single bolt holding the tie-bar to the suspension arm (fig 6). On the Princess and Metro, you can manage by just loosening the nuts which hold the lower suspension arm pivots to the car. If that does not give enough room, you must undo the four bolts holding the rear pivot in the chassis then lever the arm down.

Once that is done, remove and shim up the joint in the same way as for the upper joint.



6. Releasing lower tie-bar

# LANDCRAB



Number 25

Canberra and District Austin 1800 Club

June 1990

Nine of us attended the May meeting (apologies were received from Béla Szarka) and four postal membership applications were received. Please welcome:

Barrie TURNER	65 Balinton Crescent Melba ACT 2615	(06) 258 6420	MkII Sedan (manual)
Michael BRICE	26 Fitzhardinge Crescent Evatt ACT 2617	(06) 258 2285	MkII Sedan (manual)
Garry FRY	6/84 Wellington Street Bondi NSW 2026	(02) 306 591	MkI Sedan (manual) MkII Sedan (manual)
Michael CAINE	17 Healy Place Spence ACT 2615		

Mick Oates brought along samples of front and rear seat covers specifically tailor-made for the Landcrab. They are good quality with a sponge rubber lining. Colours available are brown, blue and grey. Orders and enquiries can be made by phoning Mick, 231 9387.

Recently our club got a pat on the back: A woman in Pearce by the name of Lyn Knobel sold her 1800 a few months ago, but must have forgotten to fill out the disposal section on the reverse of the registration form. The new owner also neglected to transfer the registration into his name. In the following weeks the 1800 attracted several parking infringement notices together with vehicle defect notices. These notices were sent to the former owner in Pearce, finally resulting in the cancellation of her licence. Lyn made numerous phone calls to the respective authorities in an effort to explain the situation, but had no record of the name and address of the buyer of the 1800. Lyn also sought legal aid with no satisfactory result. In desperation Lyn contacted the club requesting our members keep a lookout for the car, a white 1800 Reg No YHS 669. Lo and behold, barely a week later the car was spotted by Andrew McGregor, who waited for the owner to surface and discreetly procured a name, address and phone number on the pretext of an invitation to join the club. Andrew passed the information to Lyn who has since contacted the police. There is a strange sequel to this story: Len Eastwood also spotted a white 1800 with the registration YLS 669, which had a 'For Sale' sign on it, and thought it may have been the car in question. How's that for coincidence?

On the international front, Bill Fraser sent their clubs' latest newsletter and, in a letter to us, priced some of the parts mentioned in a previous issue. All parts are new and those available to us include: Pair CV joints £40 or complete with driveshafts £50 pair (MkI and MkII); Swivel hub ball joints £5 each; Throttle cables £2.50 each; Austin bonnet badge £10; Front mudflap kits (pairs with brackets) £5 per set; Complete MkI grilles c/w badge £30 each (large order preferred as shipping costs would be high); Boxed 13" hub caps £10 set of four. Also included with this issue are spare parts lists taken from the UK Landcrab newsletter.

Bill says the T-shirts are also now available and sent one, which I took along to the May meeting. They are white and the UK club logo appears on the left breast; the logo is red and about the size of a hand (a copy appears at the end of this newsletter). Bill invited orders from our club — cost £6 or £12 each, representing good



value. The T-shirts are 50/50 polyester/cotton and come in medium, large and x-large (large fits a 40" chest). Cash/cheque with order to the club at 3 Mahon Place, Hughes ACT 2605 preferably by 4 June.

Béla Szarka has supplied a drawing showing a suggestion on how to fit a negative earth radio/cassette into a Mk1 with positive earth, should you not wish to reverse the polarity. Most components are available from Dick Smith Electronics.

If you did not know already, MkII PBR rear brake cylinders are no longer available. A very helpful bloke in Molonglo Brake and Clutch Service in Townsville Street, Fyshwick, spent a long time in an attempt to identify a similar one, suitable for the 1800. The only one he came up with was from a Valiant, however the thread was different and longer, and would warrant altering the brake line to the hub. The other and better alternative is to leave your old cylinder with Molonglo Brake and Clutch Service and have them fitted with stainless steel sleeves which will still take the standard size hydraulic seals. The cost for the pair is approximately \$44 and is probably cheaper than a new one anyway.

Have you ever wondered what all that 'YAH' stuff meant when reading your engine number on your registration papers? Here is the explanation, for example, 18YAH/TA/H101: 18 means it is a 1798cc Austin; Y denotes Australian origin; A for Austin; H is H type (1400-1999cc); a fourth letter can denote automatic; TA means standard ratio remote control gearbox - transverse; H denotes the engine as high-compression; followed by the serial number.

When next you service the CV joints on your Landcrab, check for excess wear in the inner and outer ball race tracks in the hub. If you look carefully you will see that any wear will be in the form of a small indentation on the side of the ball race track. This, of course, results from the constant pressure applied by the drive in forward motion. It is suggested that, following inspection and renewal of the six steel balls, you fit the previously left side to the right side of the car and vice versa. This ensures the constant pressure of the drive will occur on the opposite unworn side of the ball race track.

In the British Autocar magazine dated 13 April 1972, the road test of the MkIII Austin 2200 appeared. You may wish to add this to the list of articles about the Austin (see July 1989, No 14, issue of this newsletter).

Included this month is a drawing/suggestion on how to make up your own simple hydrolastic suspension pump and a depressurisation device. Both are reprinted courtesy of the AMVC VIC. Also there are some hints and tips taken from the Australian Autofix magazine from a few years ago.

Bill Wheeler supplied the following snippet: Did you know the very first car made by BMW was the Austin 7 built under licence and marketed as the 'Dixi'? Try that on the next yuppy BMW owner you meet. The Austin 7 was also built under licence in the USA as the 'Bantam' and in Japan as a 'Datsun'.

Currently our membership boasts 49 members and is made up as follows: 27 Canberra and District; 19 interstate; and 3 affiliations. Our financial balance is \$95.93. Upon receipt of fees from members who wish to renew their membership, a list will be compiled showing current membership together with a register showing details of all vehicles (model, mark, type, colour, engine number). Early remittance of outstanding fees would be appreciated and should be received by the end of June — AT THE LATEST.

Our next meeting will be on Monday, 4 June, at 7.30 pm at the Canberra Yacht Club.

Remember ... You're travelling First Class.

Mick



## FOR SALE:

1967 1800 Mkl Sedan: Manual, beige with red interior, genuine 13 000 miles, showroom condition, full service history available. Contact Herb Haine, telephone (064) 524 520 (Cooma).

Mkl Sedan: White, good condition, good tyres with 6 months rego. Spare motor (in need of clutch) goes with car along with numerous spares. \$1500. Contact John Johnson, telephone (06) 288 3791.

1968 MkII (changeover model) Sedan: Beige, 4 new tyres, sunvisor, headrests, weathershield, rego to 18 August. \$1500. Contact George Parker, telephone (06) 254 1253.

1970 MkII Manual Sedan: Pale blue with ivory interior, pushbutton radio, new tyres, towbar, weathershield, new gearchange cables, very good motor, 10 months rego. \$1400. Contact Alain Rohari, telephone (06) 285 2936.

Mkl Manual: Offwhite, red seats, 10 months NSW rego, 56 000 miles. \$1000. Contact Peter Dobson, telephone (02) 525 0268 (Caringbah).

Mkl Manual: Green with green interior, good condition, engine out and needs new clutch. \$250 to club member. Contact Brian Thomas, telephone (06) 259 2286 [Mobile Pager 288 1111 10772].

Les Lenny is wrecking his Mkl utility. Telephone (048) 836 536.

## SWAP:

1800 Mkl parts list for 1800 MkII. Call Peter Jones, telephone (046) 262 094.

**LAND CRAB!**

**'DIZZYAK' IS FOR SALE!**  
A very rare ex-works Austin 1800  
Marathon car is now available.



A participant in the 1968 London-Sydney Marathon, 'Dizzyak' (as the car is more affectionately known), is one of an original team of six cars and is believed to be one of only two remaining. Prepared and supported by BMC Motorsport at Abingdon, the car was driven by a 3 man team, and finished 30th out of 98 starters. Recently restored to original specification the car comes with a tremendous amount of supportive documented history.

This is a unique opportunity to capture a piece of motoring history at £30,000.

**TELEPHONE: 091-455 6867**  
**FAX: 091-427 1869**

As seen in a recent car magazine,  
Does anyone have £30000 TO SPARE!!



T-SHIRT DESIGN

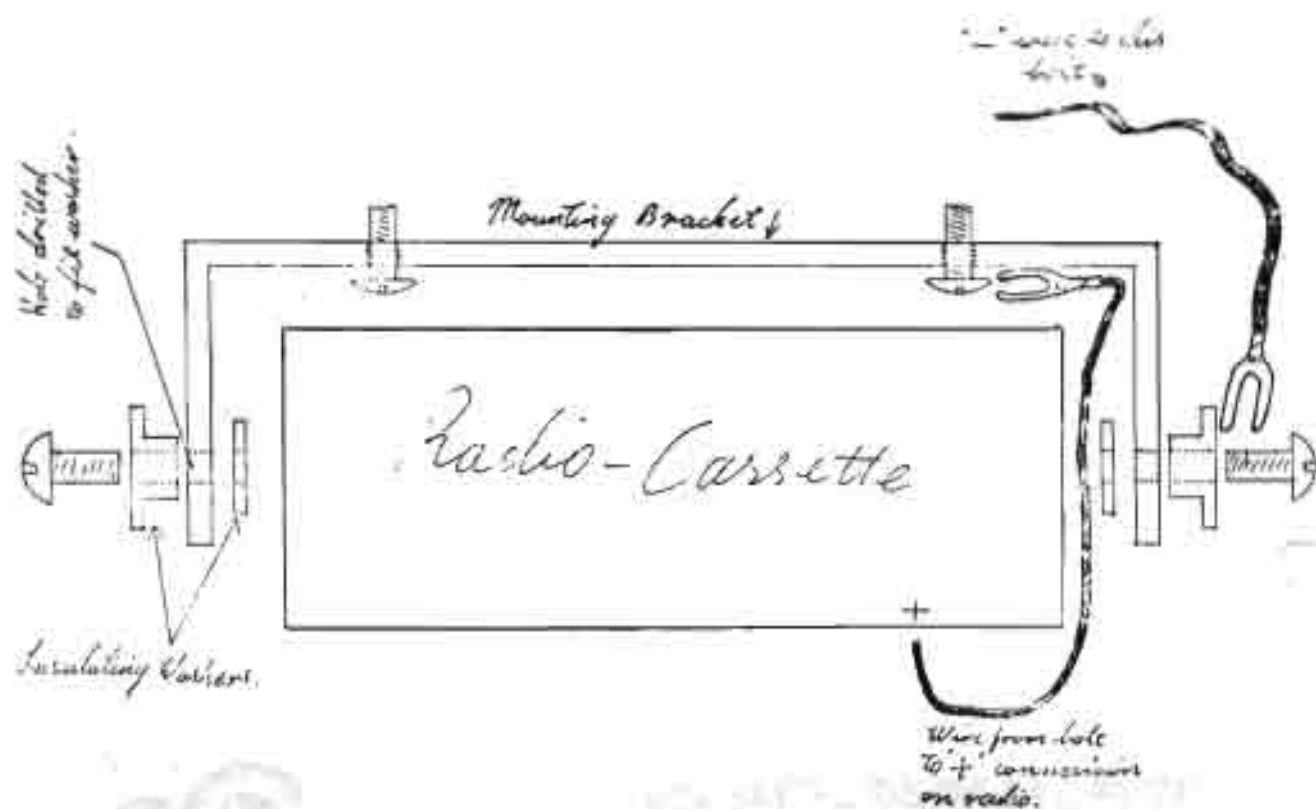
## Canberra Swap Meet

The Third Canberra Swap Meet  
will be at the  
Starlight Drive-In  
Northbourne Ave.  
on Saturday 6 October 1990  
Stalls \$3 (2 persons + trailer/car/ute)  
Buyers & lookers \$2

All catering provided, no food or  
drink on site. Catering from 07.30

On-site parking.

Swap finishes at 16.00 Fri

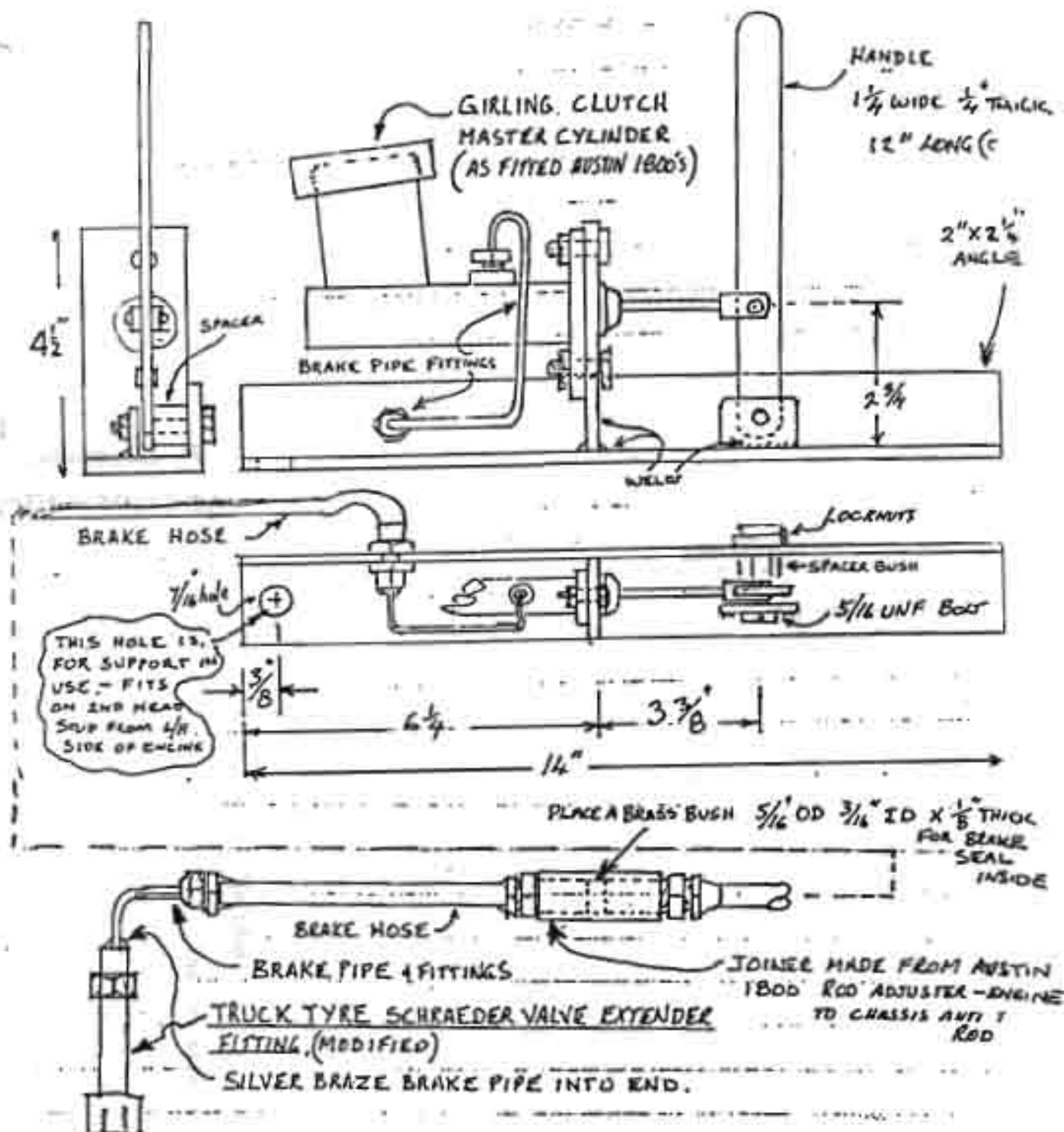


#### SUGGESTION:

Alternate method of connecting "-" earth radio to a "+" earth car.

Plastic nuts and bolts available from Dick Smith Electronics.

[Source: Béla Szarka]



## "HYDROLASTIC SUSPENSION PUMP-UP"

DIMENSIONAL DETAIL AND COMPONENT SOURCE DETAIL.

(MOST COMPONENTS ARE AS FITTED TO AUSTIN 1800)

DRAWING NOT TO SCALE.

## HYDROLASTIC SUSPENSION PUMP-UPS

### REFERENCE: FLYING "A" - KEN MAYER DETAIL

The drawing herewith is what I made-up when I read Mr. Mayers article on Austin 1800 suspension pump-ups. It is passed on for interest to members, and note that all items are off the shelf items from Austin 1800 components and commercial outlets. Most home workshops could assemble this tool/machine, and it is a somewhat simplified version of Mr. Mayers unit. The pump-up device was made-up by myself through sheer necessity - My land crab rear suspension slipflex bearing assembly finally "carked-it", after only nineteen years hardwork. The shrieking of the tyre on the body finally convinced me that something had to be done.

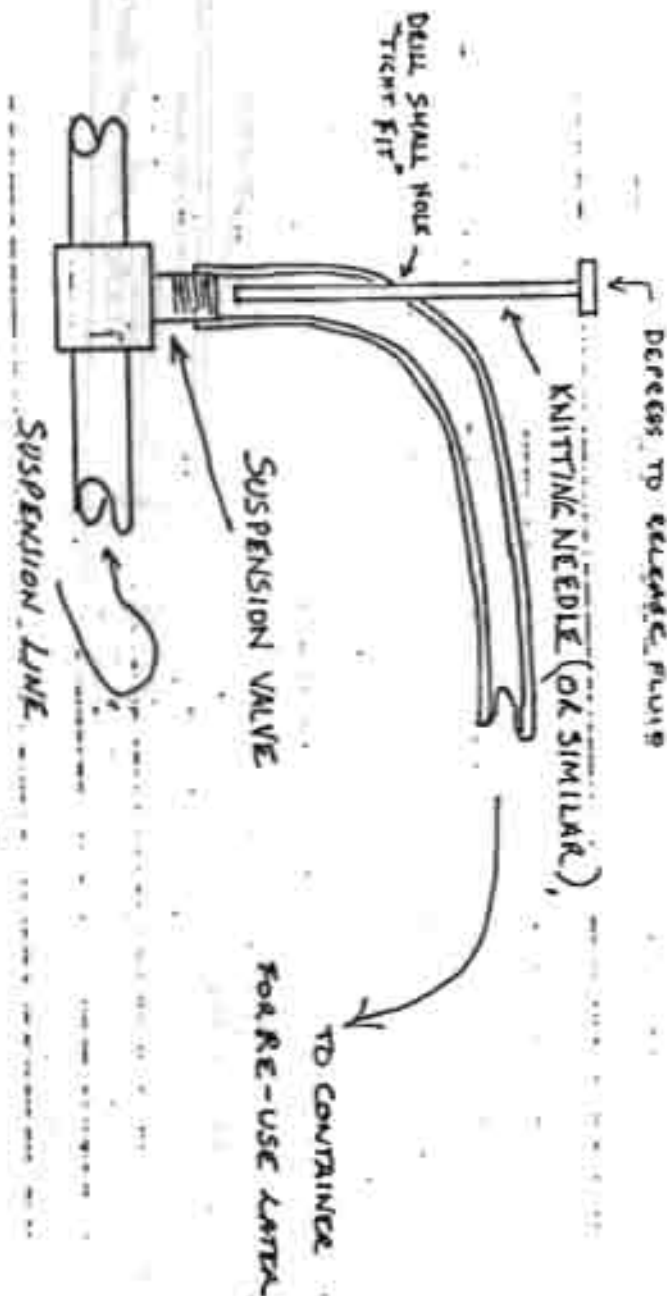
Stage one of the job was to deflate the suspension and recover fluid for re-use. This was achieved by placing plastic tube over valve and into a container- A hole, one eighth diameter, drilled into tube 3" from valve end, with blunted knitting needle inserted allows Schraeder Valve to be depressed and release of fluid into container for later use.

Re inflating suspension is achieved by leaving the end of the brake line fittings, and truck extender valve, loose to expel air (bleeding), tighten fittings and simply pump-up suspension to specification.

I used Mr. Mayers brew of Metho-Water-Inhibitor to make up the extra fluid needed. Worked real beaut.  
I can recommend the machine as it is simple to use.

Article from;

Ken Patience Aug. '89.





# LEYLANDFIX

## OVERHEATING AUSTIN 1800

I own an Austin 1800 Mk II Automatic and my problem is overheating. I like to cruise about 110 km/h but find it impossible, because after 30 to 60 km the temp gauge shoots past N right up to H accompanied by the usual embarrassing frustrating noises of escaping steam that can only signal that no good is being done to the motor.

I've taken it to my local service station three times, but no luck. All they could do was give me a greater pressure cap for the expansion tank. It did not seem to improve the overheating problem. At the moment I travel 8 km to and from work and find after two or three trips the radiator and expansion tank requires over two litres of water.

Even when the gauge is past N and I stop the engine there is a bad gurgling sound as if air is being sucked in. At one stage I thought the thermostat was the problem so I removed it. I had not put it back, but no improvement.

Another symptom is that when I start the motor there is a loud gurgle within the engine block, at the opposite end to the fan, as though there is a blockage or airlock of some sort.

Aho, can tape be put on the car without paint peeling off. Is there special tape?

T. Cooper, Palmwoods, Qld.

Either lack of water circulation or heating of the water by the engine is the cause of the loss of water from the cooling system, assuming that there is no external leak in the system.

To check for a circulation problem, first ensure that the fan belt has been correctly adjusted with no more than half an inch of flex in the belt between two pulleys, check all the radiator hoses and water by-pass hoses to ensure that they have not collapsed blocking the circulation through the hose, have the cooling system reverse flushed and if the problem still exists the radiator can be removed from the vehicle and cleaned out by a radiator specialist after being unsoldered.

If the circulation check proves to be OK, then have the cylinders compression tested to see if there is one or more particular cylinder that is low on compression due to a blown gasket between the cylinder and the water jacket. If the compression test does not show a drop in compression then use the product called 'Tee-Kay Head Chek' (reviewed in the December '75 issue of AUTOFIX).

Also look for over-advanced ignition timing, lean carburettor, wrong heat range of spark plugs fitted, or either over-adjusted or grabbing brakes.

## AUSTIN 1800 QUERIES

I have an Austin 1800 produced in '68 which has an automatic transmission.

How do I renew the ring gear? Can it be renewed without pulling out the engine, and if so, how?

What causes the brakes to build up and give a full brake pedal with little stopping ability?

-G. C. Whelan, NSW.

The engine will have to be removed from the vehicle to enable the ring gear to be renewed.

With the engine removed detach the flywheel housing, primary drive cover, starter motor, clutch assembly and the flywheel.

Support the flywheel, drill through the gear and using a sharp chisel split the ring gear. Remove the ring gear and clean the gear mating surfaces of the flywheel flange. The new ring gear should be heated to around 350 deg preferably in a thermostatically controlled furnace. The correct temperature will be indicated by a light bluish surface color on the ring gear.

The gear is then placed onto the flywheel with the lead on the teeth uppermost. While the ring gear is cooling lightly tap the gear on the face to prevent any distortion which would cause the ring gear to move away from the flange.

Brake pedal pressure build-up is

probably being caused by a blockage the master cylinder compensating port. The master cylinder will have to be removed from the vehicle, dismantled and cleaned out. On assembly new rubbers should be used. The brakes are bled as detailed in the July '75 issue of AUTOFIX.

The compensating port is visible through the top of the fluid reservoir. It is cleared with compressed air - do not use wire or drills to clear the blockage.

## OVERFLOWING 1800

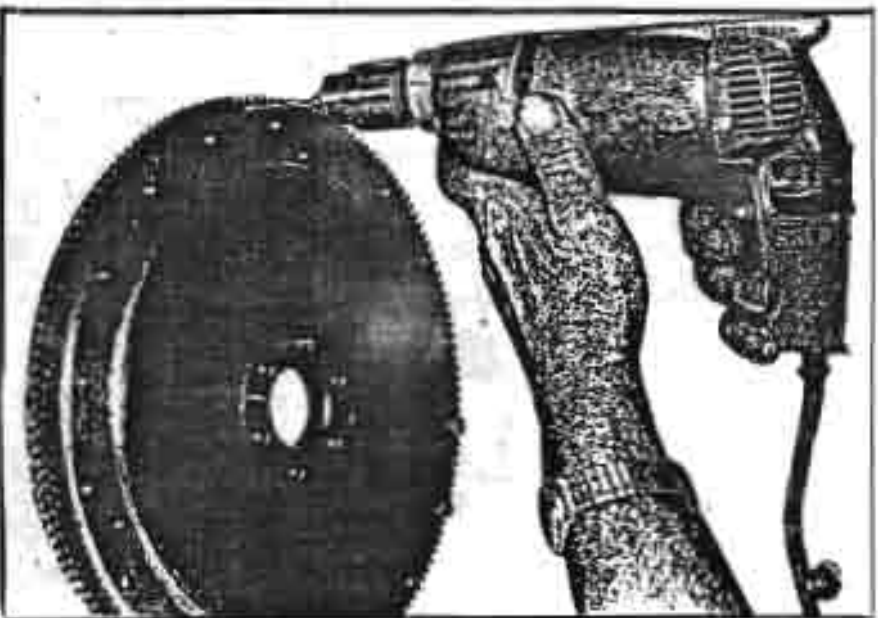
I am having trouble with the petrol overflowing from the filler cap of my Austin 1800 Mk 2. It even overflows when the tank is only half full. Can you help me?

C.A., INDOOROPOLLY, QLD.

Our friendly Leyland dealer tells us that your problem is due either to a faulty seal on the inside of your cap, or the pressure release spring in the cap failing under slight pressure build-up in the tank. So renew the seal or the cap.

As a point of interest if the top of the filler tube is in anyway deformed slightly the same symptoms will occur due to an incorrectly seated seal. In this case it will be necessary to renew the filler tube.

Australian AUTOFIX, January, 1976 11



Australian AUTOFIX, February, 1976

# LEYLANDFIX

Take advantage of the AUTOFIX technical advice service. Let us know the make, model, year of manufacture, chassis and engine number of your car. Describe the problem clearly and enclose a cheque or money order for one dollar.

## 1800 — GETTING TO KNOW YOU

I own an Austin 1800 MK 1, type YAH32, car No. 13863, engine No. 18AMW/U/H89485 and would like to improve its present condition. It has a few problems, being as follows: Sometimes it is hard to start, how can I solve this?

The Austin is also fairly slow on acceleration, how and what are the best ways to add on a few horses?

The suspension isn't very satisfactory either, going over bumps can only be described as bone-shattering. The steering column or shaft is also affected as it judders and jars. Any remedies?

What is the best brand and type of spark plug to suit the Austin (for better performance and economy)?

Where can I get a good respray job near here?

Please supply me with the advised speed and accessory shops.

R. Lau, Blacktown, NSW.

In the June issue of AUTOFIX we published a letter from the technical department of Leyland Australia regarding hard starting on a Marina. The same conditions apply to your 1800.

Acceleration can be improved by fitting twin carburetors but fuel econ-

## WHICH POINT FOR TIMING?

Re your article for timing a Marina 4 10 deg BTDC at 500 rpm — you show a photo in your magazine of the timing mark. Which is the correct timing mark? Out of the four different people I have received various answers.

D. Milk, Bayswater, Vic.

Your problem is easily solved. We have shown a picture here with the timing marks indicating each one and its position before top dead centre.

The spike aligned is zero degrees bt/dc, the one on its right, five degrees bt/dc, next is 10 degrees bt/dc and far right, 15 degrees.



omy will suffer. A good electronic tune up will probably have the same effect and will help fuel economy. Multiple carburetor kits can be obtained from Lynx Engineering of Parramatta Road, Croydon.

The suspension on the 1800 should be excellent. The hydroelastic system has everything in its favor and if your car rides roughly the suspension must require attention. Take the car to a Leyland dealer and have the suspension pumped up to the correct height. This is a specialist's job and the dealer will have a special pump for adjusting your suspension.

The steering wheel shudder could be due to a worn bearing at the top of the steering shaft. Check this after you have had the suspension reset. The correct spark plug for your car is a Champion N9Y.

Unfortunately we do not know of any spray painters in your area whose work we have assessed. We can only

direct you to the classified section of your phone directory for painters and speed accessory shops. Mailings of Parramatta has a wide range of speed gear and the NRMA may have a list of spray painters.

Another check you may care to make with the steering is the rack. It bolts to the floor and to gain access to the nuts you'll have to remove the carpet or rubber mat. The four mountings are either side at the front of the floor, the right two near the pedals. Tighten all four firmly, but don't overtighten.

DO YOU HAVE A PROBLEM WITH YOUR CAR? WRITE TO US AND ENCLOSE THE COUPON PROVIDED AND \$1.00. WE'LL SEE THAT YOU WILL RECEIVE A REPLY OR A PUBLISHED ANSWER IN FOLLOWING ISSUES





**B.M.C. & B.L. PARTS, TRIM, BUMPERS, GRILLES, LAMPS, INSTRUMENTS & BADGES**

Austin 1800

11.4.90

PRICE INCLUDES POST & PACKING

NO.	DESCRIPTION	PART NO.	PRICE
1	Front bumper		28.00
2	Rear amber flasher lens L/H (Morris)	27H2477	4.95
2	Rear amber flasher lens R/H (Morris)	27H2474	4.95
2	Front flasher glass -clear L/H	27H3354	2.50
2	Fuel gauge (MkII)	13H4635	8.00
1	Temp gauge (Austin+Morris+Wols 2200)	13H7622	8.00
6	Red lamp lens L/H	27H6246	4.75
1	Pulley -power steering pump	12H4305	5.50
3	Rack overhaul kit (1800, 18/85, 2200, Wols6)	BHM7119	13.95
1	Pressure plate (1800-Princess2)	32B43	32.50
1	Drive shaft auto	BTB953	44.00
2	Temp gauge (Wols)	13H3498	8.00
1	Fuel gauge (Wols)	13H3497	8.00
1	Cable -auto selector	22H1305	19.50
1	Front side/flasher lens -small L/H L731 (+ 3ltr)	27H2471	2.75
2	Hubcap	11H1117	7.00
1	Pin -pivot lower arm front suspension	BTB1275	3.75
1	Grille	CZD4161	17.50
1	Front suspension arm R/H	BTB1206	17.95
1	Grille corner L/H (MkII+III)	ARH2243	5.50
1	Clutch master cylinder (MkI+II)	13H992	27.50
1	Hand brake cable -1st type	11H1190	6.25
1	Morris grille badge (MkI)	ARH2095	5.95
1	Parking cable -auto box	88G489	6.50
1	Door lock -rear L/H	CZD1099	6.95
1	Morris 2200 badge	CZD3536/7	3.75
1	Side/flasher lamp unit		22.50
1	Kit -lower suspension arm bearing	18G9077	4.95
1	Stub shaft -rear axle R/H	BTB576	5.00
2	Grille bar motif (Austin MkI)	24G4440	5.00
1	Chrome moulding -boot lid edge (Wols)	24G4733	4.75
1	Ext. panel L/H (Wols)	24G4745	2.50
2	Front bumper (Austin, Morris)	24G2955	29.00
1	Rear bumper (MkI-Austin, Morris)	24G2968	29.00
1	Rear lamp unit L/H (Morris MkI)	13H1479	22.00
1	Rear lamp unit R/H (Morris MkI)	13H1478	22.00
1	Rear lamp unit N/S L/H (Wols 18/85) L728	13H6413	24.00
1	Rear lamp unit O/S R/H (Wols 18/85) L728	13H6412	24.00
12	Overrider -rubber faced (Wols6, 18/85)	GAC168	7.50
1	Bumper iron	24G2981	3.95
2	Hubcap -14" wheel	11H1872	5.95
1	Steering wheel centre (Wols)	13H4821	3.75
1	Idler gear (1800-Wols6, 18-22, Prin., Ambas.)	22H1139	22.00
1	Direction indicator switch (MkI)	13H3705	19.50
1	Front cover (18-22, Wols6, Prin., Amb.) engine	22H705	27.50
1	Fuel tank sender unit (2200)	BRA961	23.50
1	Rear lamp L/H (Austin 1800 MkI)	13H1466	22.00

P.T



1	Rear lamp R/H (Austin 1600 Mk1)	13H1465	22.00
1	Indicator switch -dip, horn, flash (Mk11)	13H8860	19.50
1	Fuel gauge (Vols)	13H3497	8.00
1	Viper switch (Austin, Morris Mk11)	13H6329	4.95
1	Accelerator cable (2200, Vols)	FAM1213	1.50
2	NUT drive shaft	BTB615	3.50
1	Temp gauge (2200, Vols)	13H7622	8.00
1	Nut for 1st motion drive gear	22H1142	3.75
1	Mounting rubber -engine rear	21B1644	11.50
2	Hand brake cable -LND	BC685	3.95
11	U-bolts to drive shaft -manual	11H1103	1.00
2	Door striker L/H	24G4817	2.25
3	Brake master cylinder (Mk1, 11)	GWC129	29.95
1	Side indicator lens O/S (Mk11)	27H2464	2.75
1	Rear amber flasher lens R/H (16/85, Vols)	37H8545	3.75
1	Clutch cover (not all vehicles)	13H3175	18.00
2	Wheel cylinder -rear	GWC1113	10.00
1	Screen washer bottle	13H8443	3.25
1	Front mudflap kit	GAC205	6.95
1	Heater tap (also Midget 1500)	12H1293	13.25
9	'O' ring (also 3-litre) manual steering	27H8362	0.45
1	Door-liner screw -R/H rear	B2U3566	5.95
1	Grille centre bar (Mk11, 2200)	CZD4151	7.00
1	Side indicator lamp unit R/S small (also 3-litre)	13H1462	22.50
1	Dynamo for PAS (GEU103) No exchange needed	22779	35.00
1	Hose for PAS	11H1744	7.00
1	Coupling dynamo to PAS pump	AEC2176	9.00
1	Chrome overrider	24G2959	7.50
5	Clutch cover	GCC163	26.00
1	Drive shaft manual -fixed inner end		44.00
1	Front side/indicator lamp O/S (Vols)	L732	25.00
1	Front side/indicator lamp -long (Mk11)	13H6392	22.95
1	Upper suspension arm -L/H (Mk1)	BTB631	19.50
1	Petrol pump	AUF704	19.50
3	Crank case vent	CHK36	1.25
1	Coupling -steering not PAS	21H497	5.00
1	Gear knob	22H1051	2.00
4	Rear bumper (Austin+Morris Mk1)	24G2968	29.00

Terry Moore of 25 Southgate, Barnsley, South Yorkshire S75 2QL (TEL. 0226-287240, after 7)  
has the following items for sale:

CLUTCH MASTER CYLINDER (1 only) £19.50

WATER PUMP (1 only) £17.50

CV JOINTS (Now cost with VAT around £62 each)

£38 each/£72 pair/ £33 each, 3 or more/ or £1175 for a quantity of 38 (working out at  
half normal price)

FRONT CROSSMEMBER £24

FRONT INNER WING VALANCES £70 pair

FRONT SIDE MEMBERS (below valances) £40 pair

ROOF CHANNEL MOULDINGS £18 pair

1800 BONNET LID £58

MK. 1 N/S FRONT WING £85

MK. 1 N/S REAR WING £77

MK. 11 N/S FRONT WING £85

MK. 11 O/S REAR WING £85

18/85 BONNET LID £58

MK. 1/11 O/S FRONT WING £85

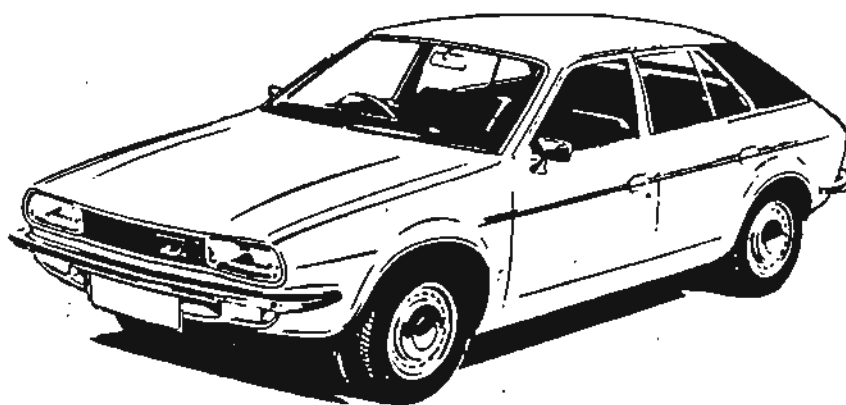
MK. 1/11 O/S REAR WING £

WOLS. 'SIX' O/S FRONT WING £90

MAXI NATIONAL DAY (1800's WELCOME) 5 MAY BROKENHURST, HANTS 01-658-36



# LANDCRAB



Number 26

Canberra and District Austin 1800 Club

July 1990

Not a month goes by without recruiting new members and this month is no exception — please welcome:

Geoffrey HOLMES 14 Bruxner Close (06) 291 7196 MkII Sedan (manual)  
Gowrie ACT 2904

John JOHANSEN 5/35 O'Brien Street (02) 365 3685 MkII Sedan (auto)  
Bondi NSW 2026

The first thing you are probably going to comment on is the picture at the top of this month's newsletter — believe it or not, it is an Austin 1800 and, to be more precise, an HL model. Surprised? I was. This model was released in March 1975 superseding the previous landcrab 1800/2200 series in the Austin/Morris Wolseley vogue. As many of you know, this model later became known as the **Princess** when the 1800cc 'B' series motor was replaced by the 2200 ohc as standard. The BMC prototype was known as the ADO 71 (the landcrab was ADO 17) and a copy of the roadtest appears with this issue. [For further details on this and the **Princess** models see: UK edition of *Motor*, 29 May 1975 and 15 November 1975; and *Aussie Autofix*, May 1976.]

This is yet another example of the foresight of BMC when you compare the wedge shape of the 1800 HL to the modern cars of today. Incidentally, I have been told **Morwood Motors** has a **Princess** they loan out as a courtesy car whilst customers' cars are being repaired.

Included along with recent correspondence from Pat Farrell was an article entitled "A Day in the Life of an 1800". Basically it involved a test to destruction held at the Army Tank Testing Ground at Bagshot in Surrey UK; the course consisted of loose rocks, rubble, ruts and potholes. The car was piloted by the then rally-ace Rauno Altonen and a film cameraman did his best to take pictures from the back seat. Hour after hour Rauno hurled the landcrab around the course, the exhaust noise drowned out by the constant crashing of rocks on the underside. Whether flying off humps to land with fearful crashes or crawling out of mudholes, the 1800 came up smiling — even deep water splashes failed to stop the engine. Needless to say, the 1800 survived the ordeal, an ordeal a few armoured fighting vehicles did not survive. The moral of the story: You need not go to the next war in a landcrab and to give you something to think about when you next feel a bit despondent toward your landcrab. They don't make them like they used to!

When a rubber universal joint recently collapsed on Bill Wheeler's 1800, he was advised by

Morwood Motors that they are no longer available. Is this to be believed? Should this be the case, a lot of us are going to be in trouble because, like brake shoes and clutches, universals need to be replaced sooner or later. As mentioned in the May newsletter, Warwick Wright located a company with a supply in North Sydney. Also, I shall be making enquiries in the UK and New Zealand regarding availability. [Remember: By substituting automatic drive shafts which utilize the small steel universal joints, you need never worry about the rubber ones again. The steel ones last much longer and are cheaper to replace.]

Speaking of **Morwood Motors**, Bob Hull went to the spares department to buy a replacement hydraulic pipe — the one linking the clutch master cylinder to the slave cylinder — and was quoted \$73. He queried the exorbitant price, the salesman replying that he checked the price three times.

Bill Wheeler also advised that **Bridge Motors** in Queanbeyan is still able to service the fluid suspension on BMC vehicles with their hydrolastic service unit.

Have you given much thought to unleaded petrol? More to the point, will the day come when super petrol is phased out? With this month's newsletter is the first part of a test of a revolutionary product called **Carbonflo** on a landcrab with the 'B' series motor. The results may interest you.

You may remember our interest in last year's Endeavour Foundation Rally in Queensland and the participation of two 1800s in the 3000 kilometre bash — well, it's on again this year and three landcrabs are set to give it a go. Commencing on 13 July from Towoomba, the rally will take in eight days of gruelling outback travel through inland western Queensland, passing through Springsure and then up the Lynd Junction via Julia Creek. From west of Ingham the rally heads for the coast, down to Townsville (the itinerary including Magnetic Island), then south to Rockhampton but by an inland and rougher route, ending on the Gold Coast. This year I hope to obtain much more coverage information. [The Endeavour Foundation is a registered charity which cares for the intellectually handicapped.]

What are you doing during Easter 1991? The Austin Motor Vehicle Club of Queensland has invited our club (together with other Austin clubs) to participate in a weekend rally entitled **Austins over Australia**. This event, organised by the AMVC QLD, is to be staged at Tamworth NSW during the Easter weekend 29 March to 1 April 1991. The Queensland club needs to know as soon as possible how many of our members are interested in order to reserve suitable accommodation. Perhaps you could give this some thought and let me know (including what type of accommodation you are interested in, ie caravan, motel, camping, etc) so that applications may be sent out to you.

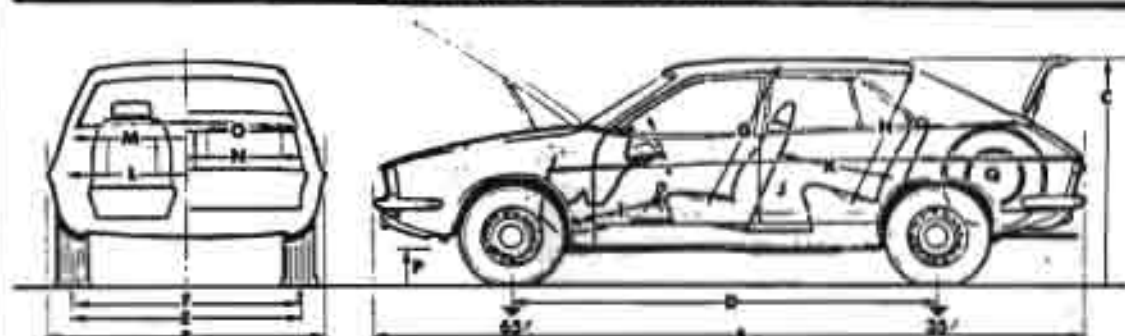
The next issue of the newsletter will include an up-to-date list of all current financial members. Those members who have not renewed their subscription by 31 July will be deemed unfinancial. Early payment of fees for those wishing to renew membership would be appreciated. This could be your last newsletter!

The next meeting will be held Monday, 6 August, at 7.30 pm at the Canberra Yacht Club. See you there!

Remember ... You're travelling First Class.

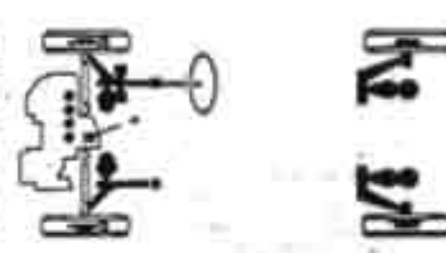
Mick

# MOTOR ROAD TEST No. 16/75 • Austin 1800 HL



	ft	in	cm
A overall length	14	7.5	448
B overall width	5	8	178
C wheelbase	4	7.5	191
D front track	4	10.5	267
E rear track	4	10	254
F seat, seat to roof front	3	2	87
G seat, seat to roof rear	3	0	81
H seat to seat	1	10.25	27
I min	1	5	43
J maximum min	1	2	38
K			

	ft	in	cm
K front to back seat max	2	8	89
L front elbow width	4	9	146
M front shoulder width	4	8.25	142
N rear elbow width	4	8.75	144
O rear shoulder width	4	7.5	141
P min ground clearance		7.5	19
Q boot capacity	12	4	



## GENERAL SPECIFICATION

<b>ENGINE</b>	
Cylinders	4 in line
Capacity	1798 cc
Bore/stroke	80.25/89.00 mm (3.16/3.50 in)
Cooling	Water
Block	Cast iron
Head	Cast iron
Valves	Pushrod ohv
Valve timing	
Inlet opens	5 bdc
Inlet closes	45 abdc
Ex opens	40 bdc
Ex closes	10 atdc
Compression	8.0:1
Carburettor	SU
Bearings	5 main
Fuel pump	Mechanical
Max power	82 bhp (DIN) at 5200 rpm
Max torque	103 lb ft (DIN) at 2750 rpm

<b>TRANSMISSION</b>	
Type	4-speed manual
Clutch	Sdp 8 in
Internal ratios and mph/1000 rpm	

Top	1.00:1/18.8
3rd	1.38:1/13.8
2nd	2.06:1/9.2
1st	3.23:1/5.7
Rev	3.07:1
Final drive	3.72:1

<b>BODY/CHASSIS</b>	
Construction	Unitary
Protection	Electrophoretic primer, paint, under-sealant, wax in sills, plastic front wheel-arch liners

<b>SUSPENSION</b>	
Front	Independent by unequal length transverse links; Hydragas spring units interconnected to rear
Rear	Independent by trailing arms; Hydragas spring units interconnected to front

<b>STEERING</b>	
Type	Rack and pinion

<b>ASSISTANCE</b>	
Toe in	Parallel
Camber	+ 30'
Castor	+ 1° 30'
King pin	11°
Rear toe in	1° parallel

<b>BRAKES</b>	
Type	Discs/drums
Servo	Yes
Circuit	Two: each operates both front brakes and one rear brake
Rear valve adjustment	No
<b>WHEELS</b>	
Type	4.5J steel
Tyres	185/70 SR14 (Dunlop Denovo optional)
Pressures	33P/21R; 26P/24R high speed, full load

<b>ELECTRICAL</b>	
Battery	12v 55 Ah
Polarity	Negative earth
Generator	45A alternator
Fuses	8
Headlights	Two tripeaxial 60/65w halogen

## EQUIPMENT

Adjustable steering	No
Anti-lock brakes	No
Armrests	Five
Ashtrays	Four
Breakaway mirror	Yes
Cigar lighter	Yes
Childproof locks	Yes
Clock	Yes
Coat hooks	Yes
Dual circuit brakes	No
Electric windows	Yes
Emergency steering coil	Yes
Fresh air ventilation	Yes
Grip handles	No

Head restraints	Yes
Heated rear window	No
Laminated screen	Yes
Lights	
Boot	No
Courtesy	Yes
Engine bay	No
Hazard warning	Yes
Map reading	No
Parking	No
Reversing	Yes
Spot/fog	No
Locker	Yes
Outside mirrors	Two

Parcel shelf	Yes
Petrol filler lock	Yes
Radio	No
Rev counter	No
Seat belts	
Front	Yes
Rear	No
Seat recline	Yes
Seat height adjuster	Yes
Sliding roof	No
Tinted glass	No
Combination wash/wipe	No
Wipe delay	No
Vanity mirror	Yes

## IN SERVICE

<b>GUARANTEE</b>	
Duration	12 months or 12,000 miles
<b>MAINTENANCE</b>	
Schedule	Every 6000 miles
Free service	At 1000 miles

<b>DO-IT-YOURSELF</b>	
Sump (includes gearbox and final drive)	10 pints, SAE 10W/50
Steering gear Multi-purpose grease (pint (power system 1) pints (5W/50))	13 pints
Coolant	13 pints
Chassis lubrication	Steering only
Contact breaker gap	0.014-0.016 in
Spark plug type	Champion N-6Y
Spark plug gap	0.023 in
Tappets (cold)	0.013 in inlet 0.013 in exhaust

<b>REPLACEMENT COSTS (excl VAT)</b>	
Brake pads (front)	£12
Clutch unit	£28.11
Complete exhaust system	£37.35
Engine (new) Price not yet available	
Front wing	£23
Gearbox (new)	Price not yet available
Oil filter	£1.45
Starter motor	£28.40
Windscreen	£10.30

Make: Austin  
Model: 1800 HL  
Makers: British Leyland Motor Corporation Ltd, Austin-Morris Division, Cowley, Oxford



## PERFORMANCE

### CONDITIONS

Weather: Cool, foggy, wind  
 0-4 mph  
 Temperature: 22-43° F  
 Barometer: 30.2-30.9 in. Hg.  
 Surface: Damp tarmac/dam

### MAXIMUM SPEEDS

	mph	kph
linked circuit	82.8	133.1
at 1 mile	85.7	137.6
terminal speeds:		
at 1 mile	87	139
at kilometre	82	132
at mile	88	142
rev in gear (at 5000 rpm):		
1st	33	53
2nd	53	85
3rd	80	128

### ACCELERATION FROM REST

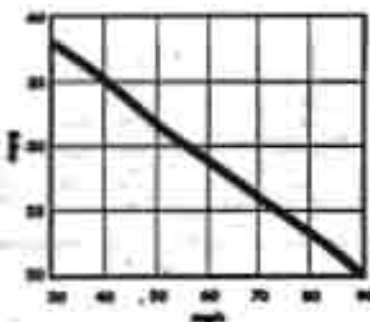
0-60	sec	kph	0-60	sec
0-60	5.0	0-40	3.0	
0-60	7.0	0-60	7.1	
0-60	11.2	0-80	11.1	
0-60	16.3	0-100	17.7	
0-60	22.4	0-120	28.5	
0-60	34.5	Stand'g km	37.0	
and g	20.3			

### ACCELERATION IN TOP

0-100	sec	0-60	sec
40	12.5	40-60	7.8
50	12.3	60-80	7.6
60	13.1	80-100	9.1
70	16.4	100-120	12.2
80	22.9		

### FUEL CONSUMPTION

City\* 27.0 mpg  
 10.5 litres/100 km



Overall 22.5 mpg  
 12.5 litres/100 km  
 Fuel grade 97 octane (RM)  
 4 star rating  
 Tank capacity 16 gal/73 litres  
 Max range 432 miles  
 695 km  
 Test distance 1222 miles  
 1965 km

\* Consumption midway between 30 mph and maximum less 5 per cent for acceleration.

### BRAKES

Pedal pressure deceleration and stopping distance from 30 mph (48 kph)

in	kg	ft	m
25	11	0.55	33
40	18	0.37	35

50 23 1.04 20 8  
 Handbrake 0.33 91 28

### FADE

20 1/2 stops at 1 m intervals from speed midway between 40 mph (64 kph) and maximum (88 mph 142 kph)

Pedal force at start 26 kg  
 Pedal force at 10th stop 33 kg  
 Pedal force at 20th stop 33 kg

### STEERING

Turning circle between kerbs:

left 33.8 ft 10.3 m  
 right 35.3 ft 10.8 m  
 Lock to lock 3.3 turns  
 50 ft diam circle 1.0 turns

### CLUTCH

Free pedal movement 1 in 2.5 in  
 Additional to disengage 2 in 5.0 in  
 Maximum pedal load 33 lb 15 kg

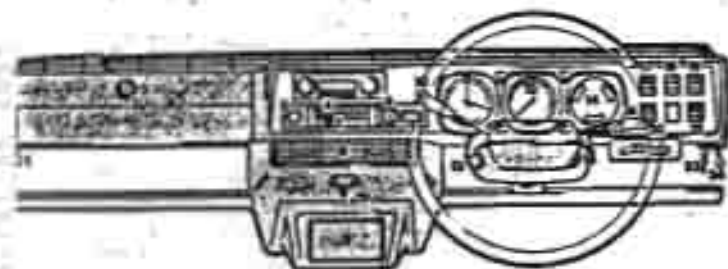
### SPEEDOMETER (mph)

Speedo 30 40 50 60 70 80 90  
 True mph 30 40 49 58.5 67.5 78 88  
 Distance recorder: 2 per cent fast

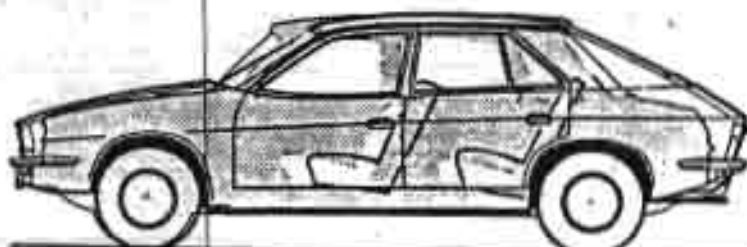
### WEIGHT

Unladen weight\* 22.4 cwt 1130 kg  
 Weight as tested 26.3 cwt 1330 kg  
 \* with fuel for approx 50 miles

Performance tests carried out by Motor's staff at the Motor Industry Research Association proving ground, Llandy



- |                       |                              |
|-----------------------|------------------------------|
| 1 air vent lever      | 16 fuel/temp/ battery gauge  |
| 2 glove locker        | 17 ignition                  |
| 3 lighter             | 18 dip/beam/ indicator stalk |
| 4 air flow control    | 19 brake release warning     |
| 5 temperature control | 20 heated rear window        |
| 6 fan                 | 21 lights                    |
| 7 belt warning light  | 22 hazard warning            |
| 8 air vents           | 23 panel lights              |
| 9 vent control        | 24 wiper                     |
| 10 wash/wipe stalk    | 25 horn/ release             |
| 11 clock              | 26 air vent lever            |
| 12 choke              |                              |
| 13 Speedometer        |                              |



(1) The new car against the old one — rear wheels aligned. Wheelbase and height are little altered, but the new model is a good deal longer than its predecessor



# CARBONFLO

## on test



**U**ndoubtedly one of the biggest problems facing the classic car movement at present, which is likely to become more and more important in the future, is the advent of unleaded petrol. While there are some older cars that can use the clean fuel with either no changes or minor carburettor and timing tweaks, the vast majority cannot because the valves and seats have been designed in the expectation that lead will be in the petrol to lubricate them. In most cases there are ways in which cylinder heads can be fitted with harder valve stems and seats but this isn't cheap and in many cases may not even be possible.

Various solutions to the problem of running older cars on unleaded petrol have been put forward. One that is of particular interest to the classic car enthusiast, though, is Carbonflo. Basically, Carbonflo is a tin-based substance that replaces the lubrication provided by lead in leaded petrol with tiny molecules of tin which not only provide the necessary lubrication but also aid fuel combustion, giving improved performance and economy. Piston friction is also reduced, making the engine even more efficient. It is also claimed that because Carbonflo improves combustion and fuel utilisation fewer poisonous gases remain to go into the atmosphere via the exhaust pipe. It's important to remember, of course, that only a tiny portion of the poison from exhaust fumes come from the lead in petrol. Carbon monoxide is the big killer; you'll die just as quickly if you run a car on unleaded petrol in an enclosed space as if you use leaded!

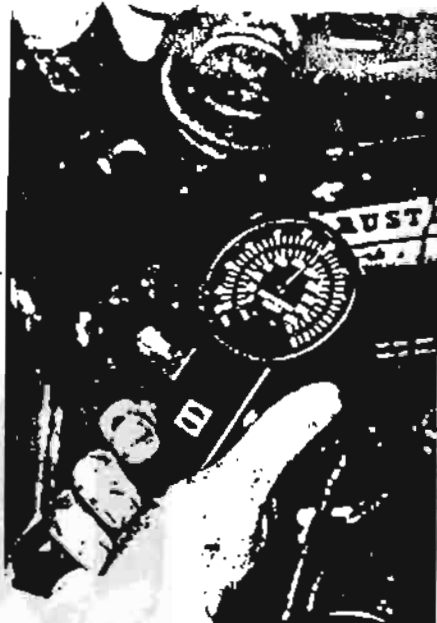
The idea of Carbonflo is not new and, as with so many inventions, it came about through necessity. In 1941 the British gov-

**We put to the test a revolutionary substance which, it's claimed, will enable any vehicle to run on unleaded petrol.**

ernment presented the Russians with a number of Hurricanes to help with the war effort. These were designed to run on higher octane petrol than the low-octane Russian fuel that was available (interestingly, all Ladas from 1974 will run on unleaded without adjustment). A British engineer and Merlin engine expert named Henry Broquet was seconded. A catalyst, which eventually became Carbonflo, was developed and the Hurricane engines ran. After the war Broquet developed the product further, largely with use in marine engines in mind. Production started in 1963 but following internal company problems Carbonflo disappeared from the market in 1967 and only re-emerged recently with the introduction of unleaded petrol as a major impetus.

Compared to the various petrol additives that are around, Carbonflo's main advantage is that it is a one-off treatment. Once in the tank it remains active for between 100,000 and 250,000 miles. It is also possible, if the package can be retrieved from the tank, to transfer Carbonflo from one vehicle to another. Cost depends on the size of engine being treated; enough to do vehicles up to 1900cc costs £48.30, from 1901cc to 3000cc £64.40 and from 3001cc to 3750cc £72.45. Quotations are available for larger vehicles. This may sound a little pricey but don't forget Carbonflo is, in effect, a 'fit and forget' treatment that will last the vehicle's lifetime provided you don't change the petrol tank. Carbonflo sounds like the ideal answer to classic car owners' prayers, so we decided to embark on an in-depth test, using closely controlled conditions, to see if the stuff actually works.

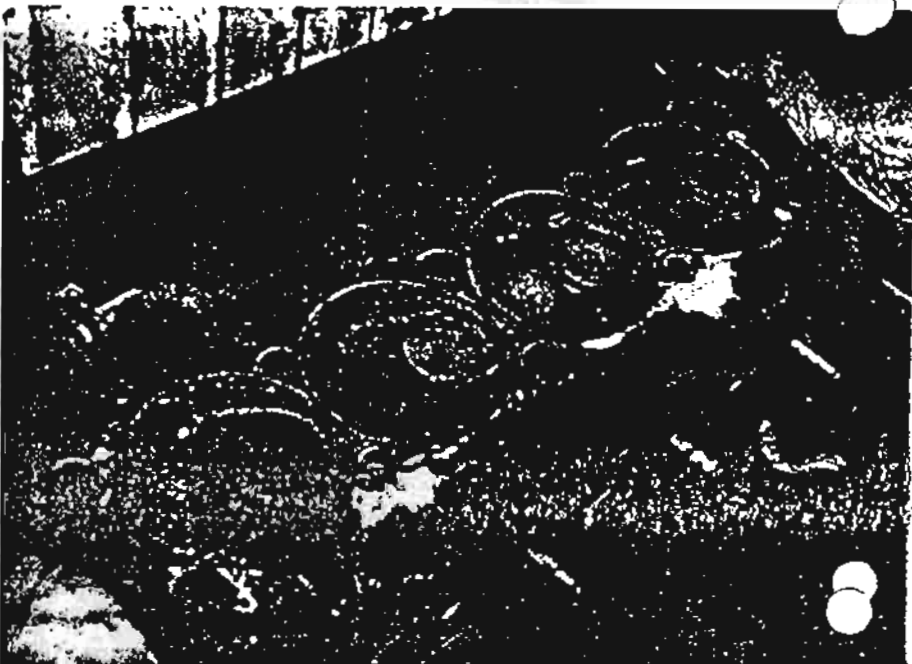
To do this, we've used a 1974 Austin 1800, not the most widespread classic around perhaps, but one with a very common classic engine, the BMC B-series. An 1800 was also a sensible choice as we needed something that would be comfortable to drive over long distances; our test involves driving the car at least 3000 miles in a couple of weeks on unleaded petrol (over routes deliberately chosen to simulate a typical mixture of high and low speed driving). Before we started, the car was taken to Mid-Kent College where the head was removed and decoked, all valves extracted, cleaned, refaced and the seats recut. We also measured the valve stem sizes. After the test the head will be removed and everything remeasured to see what wear has taken place during the 3000-plus miles of unleaded use. To test Carbonflo's performance claims we also put the car on a rolling road before the test and will do so again afterwards. We will also compare the fuel consumption, although it must be stressed that this particular test cannot, for practical reasons, be carried out under ideal conditions. Lots of factors outside our control such as air temperature and even atmospheric pressure as well, of course, as wind and the actual journeys undertaken can affect the amount of petrol used and while we will make every effort to carry out the second fuel test under the same conditions as the first we cannot guarantee that the consumption results are 100% accurate.



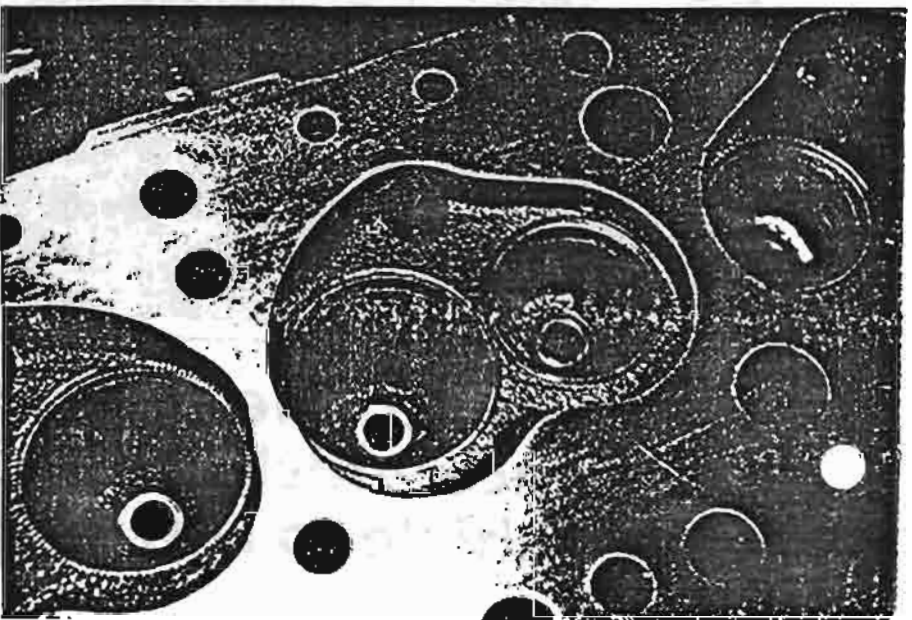
Before removing the head, we checked all cylinder compressions first with just the plugs removed (don't forget the throttle should be fully opened)....

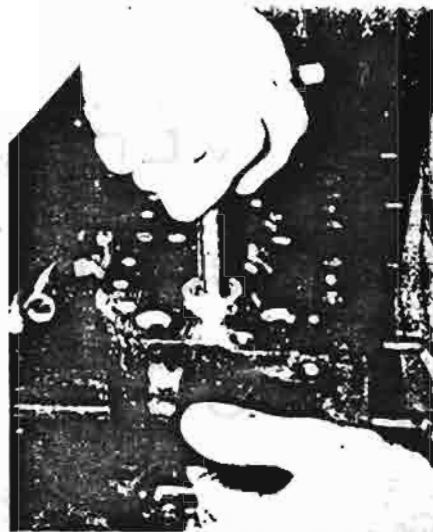


...and then with a squirt of oil down the bores, to see if the compression figure went up. It did slightly which indicates some bore wear, but the figures were still healthy enough and, apart possibly from the slight drop on number two, what one would expect from a B-series engine that had travelled 48,000 miles.



(Above) The head as removed. It certainly needed a decoke but there was little else wrong with it. (Below) Ready to receive the new valves. All seats and faces were recut.

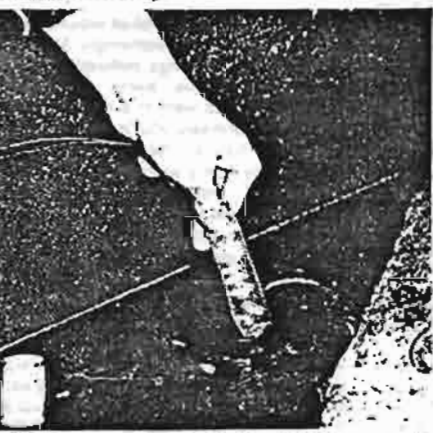




All valves were recut and so too were the seats.

## Back to Basics

Before we look at how the test has gone to date, let's just recap on the reasons why lead was put in petrol in the first place and the problems its removal can cause. Lead was originally added to petrol as a cheap, efficient and straightforward way of raising its octane rating. At this time, of course, its potential health problem was not recognised. As well as being an octane booster, though, lead acts as a top-end lubricant. Hence engines then were designed in the expectation that lead would be there to lubricate. Thus, removal of the lead in petrol leads to two problems with engines designed for leaded petrol - top-end lubrication and lack of octane (ordinary unleaded is 95 octane, slightly higher than leaded two-star).



It's important that the Carbonflo is placed at the bottom of the tank so it acts on all the petrol. The best way to achieve this is to put it in through the fuel gauge sender aperture as shown here. The length of wire is attached so the pellets can be retrieved later if required. No timing or other adjustments are needed.



On the rolling road. We took the car to Dartford Tuning Centre (Tel: 0322 93904) who were a little surprised, until the reason was explained, that we wanted to test a 'Landcrab'; their rollers normally support far more exotic machinery!

Because Carbonflo acts as a catalyst (ie. aids the fuel's burning), for all practical purposes it has exactly the same effect as raising the octane rating. The tin also acts as a substitute lubricant. As well as cars designed for higher octane petrol, there is also a converse problem with some that are intended for two-star. According to all the publicity surrounding the virtual overnight disappearance of two and three-star leaded, anything that will run on two-star leaded will also run on four but, judging from the experiences of some older car owners, this isn't so. Pre-war car owners in particular have found their vehicles run somewhat hotter on four-star which can lead to problems on warm summer days. It's claimed, however, that because Carbonflo reduces engine friction and increases

fuel-burning efficiency, it actually lowers the engine temperature and thus helps combat this overheating. This particular claim cannot, of course, be checked by the test as our 1800 definitely needs four-star.

## The test so far

At the time of writing, our 'Guinea Pig' Landcrab has completed around 2500 miles on unleaded petrol. After putting the Carbonflo in the tank, we ran the car for 500 miles on leaded (as recommended by Carbonflo's literature) to ensure that all the valves and seats were well coated. Then the car went on a variety of journeys up, down and around the country. To get the necessary mileage done in the time available a fair number of journeys had to be up and down the motorway at high speeds - not a bad thing at all as these are just the conditions under which valve recession is most likely to occur. So far, the car has been from Kent to South Wales (twice), Burnley, Peterborough and on an 800-mile weekend tour of the West Country taking in ascents of Porlock hill and the one-in-four climbs each side of Lynmouth. We reckoned that if the car could manage these without pinking there wasn't much that it couldn't! There wasn't the slightest problem.

So far, the unleaded plus Carbonflo seems to have made no difference whatsoever to the car's performance or general feel; everything right down to the temperature gauge stayed in exactly the same place as before the test started. We haven't been able to check fuel consumption yet but there seems to be no noticeable difference; as we say, this is a purely subjective comment. To be sure we've carried out as comprehensive a test as possible and we've decided not to leave it at 3000 miles but continue the test for a further month or so, bringing the total mileage up to around 6000 which should be more than sufficient for any problems that are likely to show up to do so. Before taking the head off, though, we'll check the valve settings as any valve seat shrinkage will show up in closed-up valve clearances. Under normal circumstances there should be no signs of wear after this sort of mileage, but it's more than sufficient to cause very noticeable wear if the top end isn't being lubricated properly. We'll tell you what, if anything, we find on our car next month....



Landcrab on tour. This picture was taken just south of Taunton...

...and this one, as the sign suggests, at the top of the steep climb from Lynmouth to Lynton.









## For the new 18/22 Series – Hydragas suspension.

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Sunday, 28 October 1990

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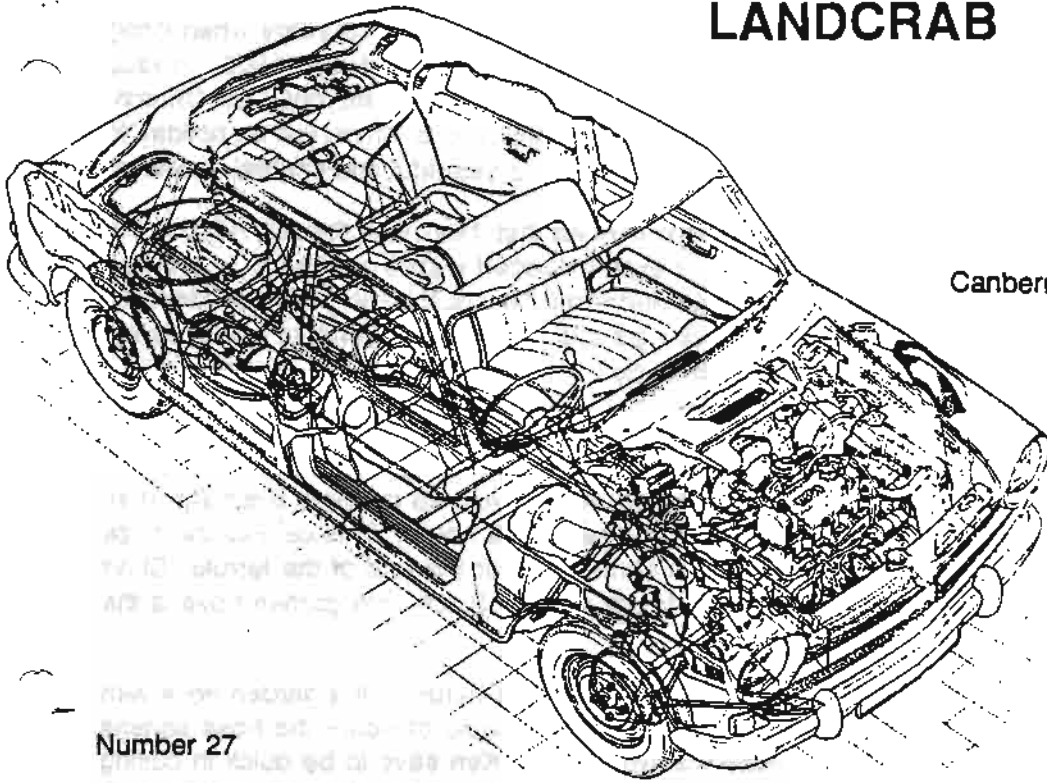
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# LANDCRAB



Canberra and District Austin 1800 Club  
3 Mahon Place  
Hughes ACT 2605

Number 27

August 1990

Seven of us braved a cold blustery evening during Canberra's coldest winter since 1946 to attend the July meeting. On nights like that you can see who the keen members are. Yet again we are to welcome new members; they are:

Louis Busetti	c/o Cowaramup Post Office WA 6284	(097) 555 421	Austin 3-litre Austin Metro Austin Princess Numerous 1800s
Neil Melville	c/o Cowaramup Post Office WA 6284	(097) 555 332	2xMkI Sedans (manual) 2xMkII Utes (manual)
Pat Toohey	PO Box 444 Charters Towers QLD 4820	(077) 874 118	MkII Sedan (manual)
Bill Church	6 McIntyre Street Mundingburra Townsville QLD 4812	(077) 791 726	MkII Ute (manual)

Western Australia features prominently in this month's newsletter with correspondence from 3 members. You may remember the mention of Louis Busetti in the May issue [N/L No 19] when Pat Farrell visited WA and related his experience of the most Austins he had ever seen — you can see Louis is now one of us. He has been an Austin enthusiast since 1962 and has successfully rallied Minis in the early 1970s. He is a farmer/mechanic with a well equipped workshop and so many 1800s that it is impossible to list them. Among other prized possessions is an Austin 3-litre, an Austin Metro, and a Princess 1800 HL. A close friend and neighbour of Louis' is Neil Melville, another **Austinnolic** who was so keen to join our club that he paid 5 years in advance. Neil and his family are all into Landcrabs and, between them, own two MkI sedans and two late model MkII utes, not to mention the four of each they keep as spares. If any of you thought Landcrabs are only suitable for local trips, think again. Recently Neil and his family completed a 6200 mile trip to the eastern states (4 adults and luggage) and returned 31.7 mpg overall, all without mishap. The Landcrab is far from dead and this should be an inspiration to all of us.

In our club there is a minority of diehards, myself included, who rely on our 1800s as a sole mode of transport and I am sickened at the derogatory comments I hear from time to time about our cars from the ignoramuses out there. Landcrabs will be around for another 20 years yet, and probably longer.

Another new member is not really new as I have known Pat Toohey for about 13 years when living in North Queensland; it was through Pat that I gained my enthusiasm for the Austin 1800. In fact, the original notes of our booklet can directly be attributed to him. Our final new member, Bill Church, bought his MkII ute from Pat and it was quite by accident that I bumped into him whilst on holiday in Townsville recently. Bill's ute was one of the last to be built and is in a beautiful and original condition.

Other 'sandgroper' members, Ken and Paula Lyle, wrote with news that theirs was the only 1800 in the recent All British Day event held north of Perth — they even managed a spot on the ABC coverage of the event. Displayed was Paula's newly-painted and refurbished MkII automatic which, incidentally, is for sale. Ken also included some photographs of their cars and of some experiments with covering gearchange cables. This now leads us into a technical mode ...

Ken has been experimenting on leaking gearchange cables and suggests the following:

- Old green garden hose works on large diameter cables, ie Reverse, as the bore is smaller than the cable diameter. Use Eurocyl paint thinners and soak for 48 hours. This causes the hose to expand and it will feel like jelly, allowing plenty of time to cover the end of the ferrule. Short lengths only are suggested and split the end first to aid slip-on. Black core garden hose is the softest.
- Another method is a summer one. Wait until a hot day (30°C or better), fill a garden hose with water (leaving hose clamped to tap and turned off). After a couple of hours the hose softens and, when water is again turned on, the hose will swell — but Ken says to be quick in cutting to size and fitting over cable. He recommends plastic garden hose rather than the rubber stuff. [He has done experiments heating the various hoses in a microwave oven and boiling water, but these haven't worked.]

Another piece of information Ken supplied refers to an automatic transmission rebuild. Bands, clutches and diaphragm overhaul kits are available from Repco, identified as '21028 WXA Borg Warner 35'. The kits are for a Ford and you will be left with some spars, otherwise everything else fits. (You will have to buy the governor and pan gaskets separately.) Ken is a member of the Repco/Girlock Club and, with a discount, the above kit cost him approximately \$170.

Updating Ken's research [see N/L No 20 Jan 90], the window winders are on hold. A hundred window racks are currently being made, zinc-plated, and should sell at less than \$10. The lenses have proved too costly thus far and Ken has contacted Lucas in the UK regarding moulds. He is also looking into the rebirth of the white, plastic-type, needle roller universal joints. This will be good news considering the mention of them in last month's newsletter. For some reason these plastic universals were frowned upon by BMC repairers and Bill Wood (of **Morwood Motors**) will not have a bar of them as he says they used to 'let go', resulting in the driveshaft smashing the rear of the gearbox casing. I have used them many times and currently have a pair on one of my cars, with over 3 years use so far. I think the secret is that 'nyloc' nuts **MUST BE USED AND ONLY TIGHTENED MODERATELY**. Ken advises that new window winders for Triumph TR7, Wolseley 18/85, 1800 and Range Rover sell for \$10.50 (including tax) in Perth.

With this month's newsletter is the second and concluding part of the Carbonflo test — testing unleaded fuel in an 1800. Although the results were disappointing, all is not lost. There is a not too well known product on the market called **Morey's Oil**, one I have been using for over 3 years. Apart from greases and other lubricants, Morey's put out an upper cylinder lubricant which is a 100% petroleum product and is therefore a supplemental oil and not an oil additive. It is best administered to the engine via their 'Vacmatic' system which is comprised of a lubricant container and a vacuum capillary unit. This vacuum capillary unit meters the correct amount of UCL to the intake side of the motor. Claims made by Morey's are removal of carbon build up, better sealing of the valves, reduced friction and temperature, and prevention of valve sticking. The engine runs quieter too. Morey's claims that, after fitting the vacmatic to the engine, the idle speed should gradually increase over the following 7 to 8 days — a claim I can personally attest to on three separate occasions. Morey's vacmatic costs around \$50 and the UCL is \$16.50/litre, BUT lasts a heck of a time. Further information and reports of a test carried out in New Zealand will appear in a future newsletter.



Those members who ordered T-shirts and parts, I am advised they are on their way to us courtesy of a member of the UK Landcrab Club. Other correspondence was received from Peter Jones who supplied detailed information on engine number prefixes used on Austin 1800s together with understanding BMC chassis number prefixes. If space allows they will be included with this newsletter, otherwise they will be in the next issue. The same applies to the interesting specifications Andrew Downing sent in on his very special Austin 1800 MkIII, which will surely appeal to Ian Davey and others keen to squeeze a few more horses out of the Landcrab.

Ian Davey received a reply from **Pole Position Motors** [see N/L No 23 April 90] and has sent a pricesheet showing cost of cams, valve springs, roller rockers, cam followers, and vernier cam wheels. He also advised that a 'Unifilter' air filter is available for around \$40 (Part No VC 165-66).

During the past month further information has been received from the AMVC (Qld) with regard to the **Austins Over Australia** rally at Tamworth next Easter (29 March to 1 April 1991):

- Registration commences Saturday morning at Munro's Mill.  
Parking marshalls on hand to park all similar models together whilst drivers register.
- Inspection of the various models available and, for those interested, a display of old wares for sale.
- Morning tea and lunch available.
- Following lunch an organised convoy will proceed to lookout a short distance away giving views of Tamworth and surrounding country.  
From there, proceed to a nature reserve about 5 minutes away where you can take short walks and observe rangers feeding the local wildlife.
- Afternoon tea in the carpark, after which return to accommodation to prepare for the dinner on Saturday night.  
The dinner held at the local bowling club.
- Sunday morning begins at Arzac Park (next to the bowling club) where an observation run is planned to a local dam and old gold mining area.
- Lunch will be on the road at a small town near the dam, after which the run continues on a round trip to the country display at the Long Yard Hotel. There are shops here and afternoon tea available.
- This will be the official end to the rally although the bowling club has agreed to open the bistro for participants on Sunday night.
- Entry forms have been received from the Austin Motor Vehicle Club of Qld and members wishing to enter this rally are requested to contact me as soon as possible.

How much value do you put on your Landcrab? Don't underestimate it because I firmly believe the Landcrab is set to rapidly increase in value. The recent spate of dumping over the past few years is coming to an end with the result that those left (particularly ones in good nick) are becoming much sought after. Utes in particular are becoming rare with one selling for \$3000 in Brisbane recently. Pat Farrell informs me the minimum 1800s go for in Victoria is \$1000, when they can get them, and that is for less than average condition. The VACC and particularly **Glass's Guide** list three categories relating to value — one star \$750, two star \$1500, three star \$3000. Values quoted are for MkII 1800s.

A current up-to-date membership list accompanies this month's issue and a little way down the track a comprehensive register of member's vehicles (listing models, colours, engine and body numbers) will be compiled. Current membership cards are also included and you will notice a change in membership numbers. The reason is that, up to now, there were two lists (one local and the other interstate) but, since we now are comprised of so many interstate members, I feel we should all be listed numerically and in order of joining.

For the benefit of those members who have joined the club over the past few months, the following

is available: Homemade hydrostatic pump, workshop manual, video of the London-Sydney Marathon, complete parts list for Mki 1800 (individual photocopies available on request), numerous spare parts (including doors, bonnet, boot lid, front and rear bumpers, rear displacer units, interior trim in various colours, rear seat, windows, front and rear screens, cylinder head, gearbox, hubcaps, driveshaft, heater unit, rack and pinion, carburettor, and many other smaller bits and pieces). A new set of standard pistons and rings is available for \$125 from Paul Corey in Sydney (telephone (02) 871 7647).

**Morwood Motors** advise that they have a new stock of rubber universal joints from new suppliers. One brand is made in the UK and sells for \$48 each. The others are boxed in pairs with the brand unknown. Andrew Downing advises that weathershields are available for the driver's side window at \$35 each plus \$6 post and packing from UV4, King Georges Road in Hurstville, Sydney.

**Endeavour Rally Report:** Due to complications, no Austin 1800s were entered in this year's rally, so there is nothing to report ...

As this newsletter goes to press our current club funds balance stands at \$397.16. Sixteen members have not yet renewed their membership and are therefore unfinancial. Current membership numbers 53 (Canberra region 27 and interstate 26).

The NEXT MEETING will be: **Monday, 3 September, 7.30 pm**  
**The Canberra Yacht Club.**

See you there! Remember ... You're travelling First Class. **Mick**

#### **FOR SALE:**

**1967 Mki Sedan:** Manual, beige with red interior, genuine 13 000 miles, showroom condition, full service history available. Contact Herb Haine in Cooma, telephone (064) 524 520.

**Mki Sedan:** White, good condition, good tyres. Spare motor (in need of clutch) goes with car along with numerous spares. \$1500. Contact John Johnson, telephone (06) 288 3791.

**1970 MkII Manual Sedan:** Pale blue with ivory interior, pushbutton radio, new tyres, towbar, weathershield, new gearchange cables, very good motor. \$1400. Contact Alain Rohan, telephone (06) 285 2936.

**Mki Manual:** Offwhite, red seats, NSW rego, 56 000 miles. \$1000. Contact Peter Dobson in Caringbah, telephone (02) 525 0268.

**Mki Manual:** Green with green interior, good condition, engine out and needs new clutch. \$250 to club member. Contact Brian Thomas, telephone (06) 259 2286 [Mobile Pager 288 1111 10772].

**MkII Automatic:** Manufactured Aug 1970, genuine 60 000 miles, new paint, new vinyl roof, window rubbers, Grand Rally tyres, elec aerial, Kenwood 150w stereo, Lynx alloy rocker cover, mechanically excellent, \$4000. Contact Paula Lyle in Perth, telephone (09) 271 3737. [Photo of car available to those interested — contact Mick.]

**1968 MkII Sedan:** Automatic, changeover model, two-tone beige, ivory-coloured interior, 80 000 miles, excellent condition, no rust, auto transmission requires servicing and a valve burnt out on head. \$700. Car at Charters Towers in Qld. Contact Wayne Lexton during working hours, telephone (077) 871 777.

**Austin Utility:** Model and colour unknown, good condition with 4 new tyres, registered until Aug 90. Vehicle part of deceased estate in Sydney. Valued at \$1800 — asking price \$800. Enquiries to Kerry Curtiss, telephone (02) 631 3352 and can be viewed at 137 Fullager Road, Wentworthville, Sydney. Canberra enquiries to Linda van Halderen, telephone (06) 231 3857.

**Mki Sedan:** Manual, good motor, new tyres, new brake pads, stainless steel exhaust, green with green interior, reg until Jan 91. \$800. Contact Bob Hull, telephone (06) 295 8094.

#### **WANTED:**

Horizontally split connecting rods, any amount (even one), will pay \$10 each plus freight. Write to Ken Lyle, 10 Montson Street, Maylands, Perth WA 6051.

# CARBONFLO

## PART 2

# on test



Since last month, when we introduced our Carbonflo test, the 'guinea-pig' Austin 1800 has completed a further 2000 miles and been to South Wales again, Grimsby and Hull (on separate occasions) and once more ventured across Offa's Dyke, as well as on several shorter hauls to places like Winchester and Bournemouth.

Last month's instalment was written the day Philip Cooper took the car to Burnley. While coming back down the motorway Philip noticed uneven running. The car also refused to idle. Our tame spannerman Ted Landon investigated and discovered that compression on number three cylinder was much reduced (50-60psi compared with 170psi on the rest). The cause turned out to be much reduced valve clearances on all exhaust valves, no clearance whatsoever on

*Mike Perkins, about to lift the head.*

one, two and three and 7thou instead of 12 on number four. Oh dear! Classic signs, we thought, of valve seat recession! Number three had 'recessed' so much that the valve was permanently partially open - hence the low compression! Ted restored the settings to 12thou and, when re-started, the car once again performed as it should and all compressions returned, more or less, to what they should be. Number four being less affected than the rest was interesting we thought; the only explanation we could think of was that, being on the end of the block, that cylinder runs slightly colder than the rest.

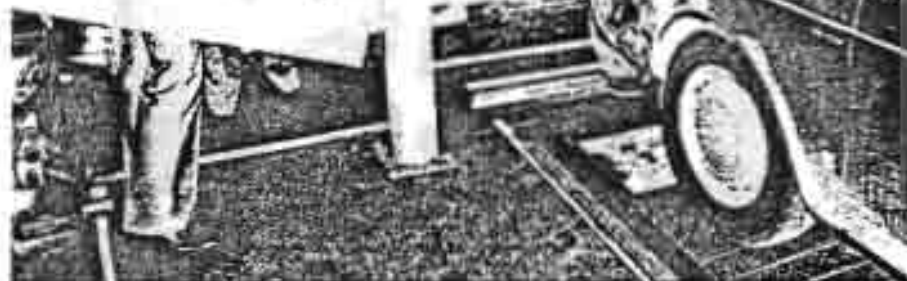
The respite was short-lived though. Within 1000 miles the problem was back, with exactly the same symptoms as before. This time, just to make sure in my own mind that the clearances were being set correctly, I wielded the Vin AF spanner, screwdriver

**A very surprising and sad result  
to our long-term trial of  
Carbonflo. Peter Simpson reports.**



HOLDEN

FOR A

AC  
Aston Martin  
Bentley  
Jaguar  
Roller  
Lot

Chris Graham talking to Malcolm Clements, while Ted Smith looks under the bonnet.

and feeler gauge myself and reset the gap to 15 thou (some books say 1800s should be set to 12, others 15). This time in addition the centre two inlet valve clearances had also reduced and I noticed that on all valves with reduced gap the valve stem oil seals had split, popped out, and were loose inside the springs. I removed them with a pair of modelling pliers and reset the clearances. This time the car didn't seem quite as happy as before but we decided to continue the test.

After about the same mileage, on the way back from Bournemouth, the car once again started to run badly. It got progressively rougher and by the time we arrived back in Chatham... well, the best description I can apply is that it sounded not unlike a building site dumper truck! By this stage it was obvious that something quite serious was wrong; I suspected a burnt-out valve, so we decided

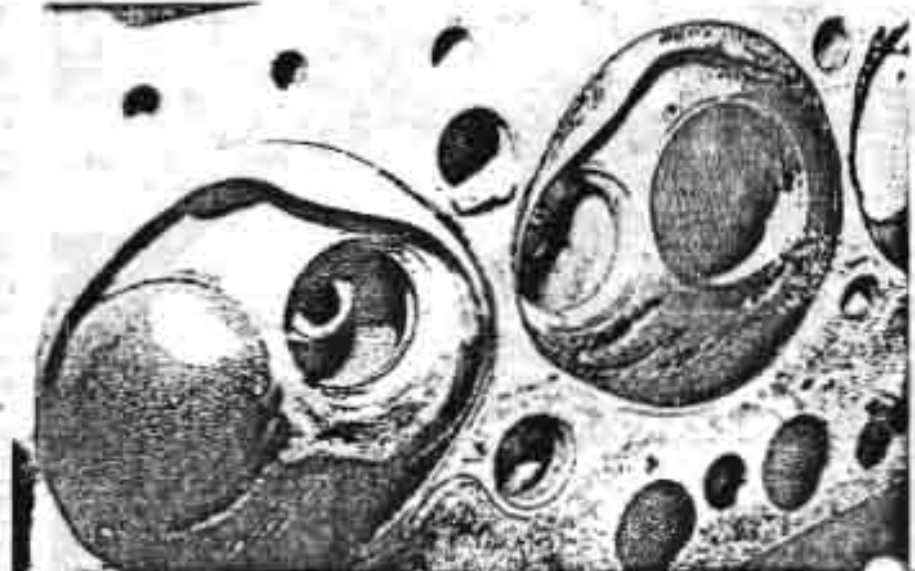
The head removed. Notice how the two exhaust valves (the smaller ones) have receded into the head; they should sit flush on top. Compare the condition with 4,300 miles ago seen in our previous issue.

that there was no point in continuing the test. The car was then driven back to the College for the post-test inspection. The head was lifted in the presence of both Chris Graham

and myself, along with Malcolm Clements and Ted Smith representing Carbonflo.

## What we found

Before removing the head, we checked the valve clearances along with the compressions. The compression figures were as shown in the table. The valve clearances, as I expected, were reduced again, with the two inside cylinders having no clearance and the others much reduced although, again, number four was down significantly less. Ted Smith supervised the checks and subsequent removal of the head. What we found can be seen in the pictures. Rather than sitting slightly proud of the head, numbers 1, 2 and 3 exhaust valves had dropped down inside. The valves were extracted and we found both severe seat recession of between 3mm and 5mm and signs of burning. We're not 100% certain at present that the head

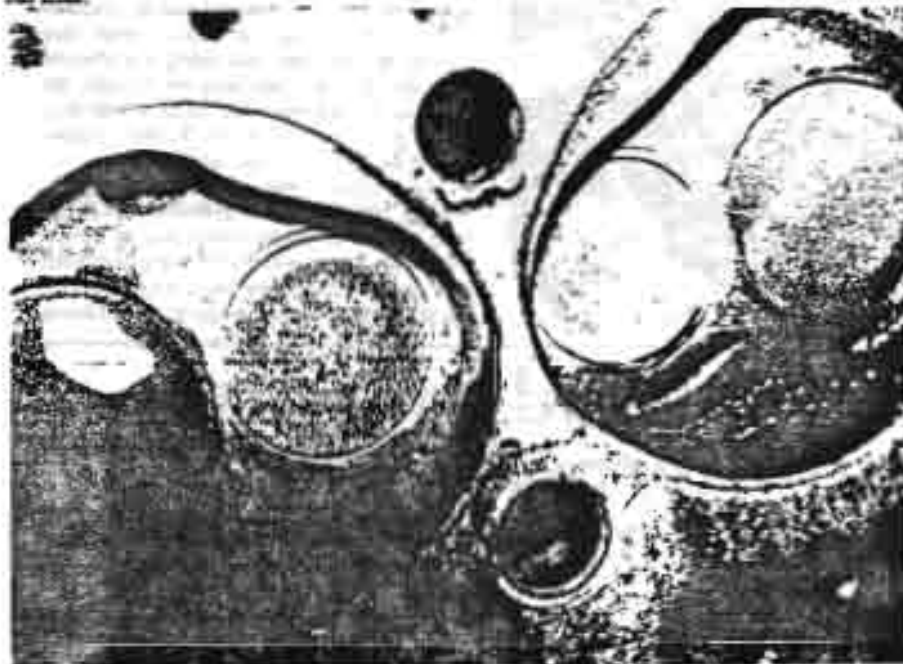


With the valves out the main damage to the seat is seen; the valve seats were 3-5mm further in than they should be!

saveable, although Mike Perkins (the senior Mid-Kent lecturer who took the head off) reckons it should be possible to fit inserts. For safety's sake we'll probably fit at least two new valves; the old ones look OK but, given the hammering they gave the seats, replacement might help the engine's long-term survival chances.

## Conclusions

Given the results of our test (which, it must be stressed, only prove that Carbonflo did not prevent valve seat recession and wear in our case) we clearly cannot recommend the product as a means of enabling leaded-only cars to run on unleaded. Due to the early demise of our cylinder head we were unable to confirm or deny Carbonflo's claimed efficiency, fuel consumption and performance benefits; there was obviously no point in putting a car with at best three good cylinders back on the rolling road. As our findings





were so unfavourable we thought it only fair to give Carbonflo a chance to comment. Malcolm Clements and Ted Smith, who we stress were as amazed as we were by the result, have supplied the following statement:

"We are concerned and naturally very disappointed with the outcome of the unleaded test on the 1800, particularly so as this is the first case of a failure that we have experienced from over 30,000 vehicles presently using the catalyst.

"It would seem that the only reason for the recession of three exhaust valves that we witnessed at Maidstone would be the failure of Carbonflo to activate in this particular vehicle for reasons yet to be determined. In order to check the composition of the Carbonflo unit we are having it analysed and will be advising *Practical Classics* of the results as soon as possible.

"The next responsible step, we feel, would be to request through the pages of *Practical Classics* for another 1800 model owner, preferably in the Midlands, who would be prepared to allow Carbonflo to carry out further tests on his vehicle in conjunction with the magazine. All costs associated with this test would be born by Carbonflo.

"May we thank the staff of *Practical Classics* for taking the time and trouble over this particular test and assure you of our willingness to assist should you be in a position to conduct follow-up tests, or require information at any time in the future. We also confirm that we wish to pay for the refurbishment of the 1800 head and the other Carbonflo unit we supplied may be used for any other purpose."

Our own overall reaction is surprise and very deep disappointment. We hoped sin-

## Carbonflo on test: The results

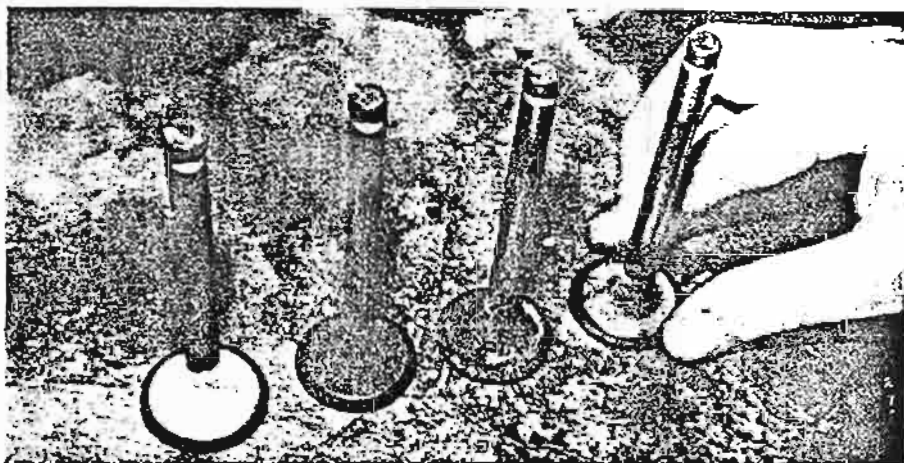
Vehicle: 1974 Austin 1800 saloon.

### Compressions:

Car as bought:	Dry	170	155	170	170
	Wet	200	195	220	200
After head overhaul (before running on unleaded)	Dry	155	160	170	170
	Wet	195	190	200	195
After test (both dry)	Before valves reset	165	60	140	180
	Afterwards, before head lifted	170	110	145	180

Stem diameters measured when head removed: all standard size .3417 ± .0001.

Measured fuel consumption at start: 22.8mpg.



Articles of the valve seat had in fact become welded to the valve faces, causing still further seat damage.

### Driving log

#### Speedometer reading

47,790. Test started with performance and fuel consumption check on rolling road.

47,880. Carbonflo dropped into tank. Car then driven 'at least 500 miles' on unleaded petrol to allow tin etc. to circulate.

48,450. First tankful of unleaded petrol.

49,500. All well.

50,500. New alternator and brake pads fitted; not in any way caused by unleaded!

51,016. Car started running badly on drive back from Burnley. Investigation revealed that cylinder 1, 2, 3, exhaust valve clearances shrunk to nil and number four was 7 thou (should be 12). Additionally, number three valve was open all the time, confirmed by 60psi compression. Ted Landon reset clearances and car seemed to run OK.

52,120. Started misfiring again. Also would not idle properly. Peter Simpson checked clearances, once again 1, 2, 3 exhaust valves closed up to nil, number four down from 12 thou to 9 thou. Also 2 and 3 inlet valves closed down to half correct size. Six valve stem seals had come out also (split). Clearances reset to 15 thou; this time engine did not run as smoothly as after first re-setting of clearances.

53,025. Returning from Bourne mouth the car became progressively rougher, particularly at lower speeds. Sounded like serious valve problem (burnt-out valve or seat). We decided there was no point in continuing the test so abandoned it. Total unleaded mileage 4,575.

53,038. Head removed at Mid-Kent College. Findings as explained in text and illustrated.

cerely that Carbonflo would turn out to be the answer to older car owners' dreams, a means of enabling us all to run on unleaded petrol. We had sufficient confidence in the product to spend a considerable amount of money on testing it, as the tone of last month's piece must have suggested. Certainly we have heard of no one else using the product having any snags, and have had many testimonials. The only conclusion we can draw is that no one else has driven a car fitted with Carbonflo as hard or as far in such a short period as we did.

One other thing to emerge from our test is that it is definitely inadvisable to run a leaded-only car on unleaded. We anticipated that, whatever happened, 3000-6000 miles on unleaded shouldn't do any serious harm; all we'd find if it hadn't worked (we thought) would be excessive wear of valve seats, though not sufficient to cause the car to all-but stop running. This view was echoed by several people at Mid-Kent College. The failure was quicker and more dramatic than anyone expected; using unleaded petrol when you aren't supposed to, especially if you do a lot of high-speed driving, is not a good idea!

# Subsist Numbat Pictorial with an Australian Aussie 1800's

1800's / 1800's

H. New Commission

Ta. - Manna, Tamarisk  
R. - River, Tamarisk

1800's or 1800's

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P.O.S. 1800's

## UNDESIGNATED BME Chinese Numbat Pictorial

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P.O.S. 1800's

# CURRENT MEMBERSHIP

MICHAEL STREET	3 Mahon Place Hughes ACT 2605	(06) 282 5262	2xMkII (manual) 1 MkI (automatic) Austin Maxi
JIM LAITY	35 Cartenz Street Griffith ACT 2603	(06) 295 8900	2xMkII (automatic)
FRANK GIFFORD	8 Winton Place Holder ACT 2611	(06) 288 3340	MkII Ute
TOM and DOREEN MALINS	21 Lister Crescent Ainslie ACT 2602	(06) 247 5805	MkII (manual) MkI (manual)
TOM BRAY	18 Baddeley Crescent Spence ACT 2615	(06) 258 4825	2xMkII Ute Tasman Sedan
BILL WHEELER	RMB 123 Wickerslack Lane Queanbeyan NSW 2620	(06) 297 4936	MkI (manual) English model
DON THOMAS	3 Olympus Way Lyons ACT 2608	(06) 281 3046	
KEITH MASSEY	55 Denny Street Latham ACT 2615 RSES, ANU	(06) 254 6053 (06) 249 2665	MkII Sedan (manual)
LEN EASTWOOD	34C Fraser Court Kingston ACT 2604	(06) 295 6447	MkII Sedan with sunroof (manual)
MICK OATES	31 Attiwell Circuit Kambah ACT 2902	(06) 231 9387	MkI Sedan (manual)
PAT FARRELL	4 Wayne Avenue Boronia VIC 3155	(03) 543 3377 FAX: (03) 543 8675	2xMkII Sedans (manual) Morris 1800 Sedan (automatic) Kimberley MkI MkII Ute
NAIRN HINDHAUGH	5 Rossmore Avenue Coorparoo QLD 4151	(07) 397 6845	MkII Sedan MkII Ute
WARWICK WRIGHT	28 Kidston Crescent Curtin ACT 2605	(06) 281 3088	MkI Ute, MkII Ute - MkI Sedan MkI Sedan (w/MGB motor)
GEOFF DOW	197 Namitjira Drive Fisher ACT 2611	(06) 288 7389	2xMkII Sedans
ANDREW MCGREGOR	10 Tubb Place Pearce ACT 2607	(06) 286 1807	MkII Sedan (manual)
BOB HULL	79 Walker Street Narrabundah ACT 2604	(06) 295 8094	MkI Sedan (manual) MkII Sedan (automatic)

MkI

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HAMISH BURNETT-READ	13 Princes Avenue Crafrers West SA 5152	(08) 339 3217 (?)	Mkl Sedan
DENNIS HARVEY	7 McCarthey Road Hall ACT 2618	(06) 230 2479 (h) 261 3331 (w)	
BILL FRASER	Landcrab Owners Club International PO Box 218 Cardiff CF3 9HZ UNITED KINGDOM	0011 44 (222) 770 015	Wolseley 2200 Sedan MkII Sedan
ANDREW DOWNING	12 Tomerong Street Huskisson NSW 2540	(044) 214 344	MkIII (manual) English model
RAY and JOAN WOODBIDGE	73 Morgan Crescent Curtin ACT 2605	(06) 282 3504	Mkl Sedan (manual)
PETER HARDING	12 Stieglitz Circuit Kambah ACT 2902	(06) 231 0167	Mkl Sedan (manual)
ALAIN ROHAN	3 Echo Place Lyons ACT 2606	(06) 285 2936	MkII Sedan (manual)
IAN DAVEY	30 Howard Boulevard Goulburn NSW 2580		2xMkII Sedans (manual)
NOEL and DOREEN MAKINGS	52 Merinda Street Wallangarra QLD 4383	(076) 84 3136 (message)	3xMiKK Sedans
BRUCE McFARLANE	'Herber' Kings Highway Brakewood NSW 2622	(048) 42 1123	Mkl Sedan (manual/auto conversion)
JAN McFARLANE	6 Hayley Close Queanbeyan NSW 2620	(06) 297 4421	2xMkII Sedans (manual)
GRAHAM and MARGARET RYAN	Tunglebung via Bonalbo NSW 2470	(066) 655 152	MkII Sedan (manual)
RICK HOPKINS	c/o Governors Hill Carapark Hume Highway Goulburn NSW 2580	(048) 212 344	Sedans, Ute
ED LENNY	51 Prince Street Goulburn NSW 2580	(048) 212 015	MkII Sedan (automatic)
LESLIE LENNY	23 Gariand Road Bundanoon NSW 2578	(048) 836 536	Mkl Sedan (automatic) Mkl Ute MkII Wolseley 18/85
MICHAEL BARTSCH	c/o ANZ Bank Rapid Creek Shopping Centre Trower Road Rapid Creek NT 0810	(089) 530 269 (?)	No car presently
IMRE SZABO	3 Hilton Street Craigieburn VIC 3064	(03) 308 3332	MkII Sedan
KEN and PAULA LYLE	10 Morrison Street Maylands Perth WA 6051	(09) 271-3737	MkII Sedan Austin Princess Mkl Sedan

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PETER HAWKER	RMB 258 Williamsdale Road Burra NSW 2620	(06) 236 3191	MkII Sedan (manual)
ELIZABETH MULCAHY	28 Booml Street Urbenville NSW 2475		MkII Sedan
PETER JONES	26 Leichardt Street Ruse NSW 2560	(046) 262 094	1969 MkII Sedan (fully instrumented)
BÉLA SZARKA	10 Eggleston Crescent Chifley ACT 2606	(06) 281 2965	MkII Sedan (manual)
PAUL KEMP	9 Dobson Crescent Ryde NSW 2112	(02) 801 545	MkII Sedan
RICHARD and LINDA PEDDEL	11 Orme Court Kelmscott WA 6111	(09) 390-8764	2 x MkII Sedans (automatic) Austin A70 Hampshire
JACQUI KELLY	6 Hester Place Chisholm ACT 2905	(06) 292 7643	MkII Sedan (manual)
BARRIE TURNER	65 Bainton Crescent Melba ACT 2615	(06) 258 6420	MkII Sedan (manual)
MICHAEL CAINE	17 Healy Place Spence ACT 2615		MkII Sedan (manual)
GARRY FRY	6/84 Wellington Street Bondi NSW 2026	(02) 306 591	MkI Sedan (manual) MkII Sedan (manual)
MICHAEL BRICE	26 Fitzhardinge Crescent Evatt ACT 2617	(06) 258 2285	MkII Sedan (manual)
GEOFFREY HOLMES	14 Bruxner Close Gowrie ACT 2904	(06) 221 7196	MkII Sedan (manual)
JOHN JOHANSEN	5/35 O'Brien Street Bondi NSW 2026	(02) 365 3685	MkII Sedan (automatic)
LOUIS BUSETTI	c/- Cowaramup Post Office WA 6284	(097) 555 421	Austin Princess Austin 3 litre Austin Metro Too many 1800s to list!
NEIL MELVILLE	c/- Cowaramup Post Office WA 6284	(097) 555 332	2 x MkI Sedans (manual) 2 x MkII Utes (manual)
PAT TOOHEY	PO Box 444 Charters Towers QLD 4820	(077) 874 118	MkII Sedan (manual)
BILL CHURCH	7 McIntyre Street Mundingburra Townsville QLD 4812	(077) 791 726	MkII Ute (manual)

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TY REYNOLDS

14/8 Bega Flats  
Reid ACT 2601

No car at present

KEN PATIENCE

149 Brees Road  
East Keilor VIC 3033

(03) 337 4661

2xMkII Sedans  
Austin Westminster A99

AUGUST 1990

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# LANDCRAB

## OWNERS CLUB OF AUSTRALASIA



Number 28

Landcrab Owners Club of Australasia

September 1990

Those of us who attended this month's meeting voted unanimously to alter the club name from **Canberra & District Austin 1800 Club** to **Landcrab Owners Club of Australasia**. The decision was based on:

- Club membership numbers — Canberra/district members virtually equaling interstate members.
- Requests from individual members in Victoria, Queensland, and Western Australia to encompass a national club.
- Our UK counterpart will welcome the name change, in line with their own name.
- Change in name will enable the Tasman and Kimberley models to come under our umbrella — rightly so as these cars are unique and becoming rare. After all, they are a six-cylinder version of the 1800, or the Midl 2200, whichever you like.
- The odd Morris and Wolseley owner will feel happier too.

I am currently endeavouring to establish a New Zealand connection with regard to the Landcrab. I am led to believe Ty Reynolds was part of a small club in the North Island. Through a fellow Queensland Austin Club member who owns two Austin Maxis I was able to obtain the name of a spare parts outlet in Auckland:

Caster Motors Mt Albert Ltd  
947 New North Road  
Mt Albert  
Auckland, New Zealand  
Fax: 0011 649 894063

Prices appear to be very reasonable once you have converted the NZ\$ to AU\$. [You may fax them authorising your credit card number and they in return will dispatch parts to you.]

Yet again Peter Jones has sent in more Landcrab material. In a photocopied chapter entitled "Mismanagement — The 1800" [Jeff Daniels, British Leyland — The Truth About the Cars, Osprey Publishing], the whole history and development of the BMC 1800 cars is covered.

In the course of Peter Jones' research into engine/chassis prefixes he advises that, although the Landcrab prototype was known in the UK as ADO 17, such was not the case in Australia. The Aussie prototype was YDO 18. MOWOG on BMC castings stands for: MO — Morris, WO — Wolseley and G — MG. He also sent in details of his 1800 including such period accessories as leather bonnet straps, ex-BMC Works steering wheel, flexible rally map reading light, driving lights, fully instrumented. Peter has also fitted reversing lights incorporated inside the trafficators. To do this, replace the single





filament globes and holders with double filament type. wire the unused filaments to a switch on the dash, which in turn should be wired to the auxiliary fuse.

Included in the packet Peter sent was a very unique photograph of a Mkl Campervan taken on a car lot (presumably in Sydney) goodness knows when. Our late member Colin McFarlane once told me there were only six such vehicles professionally built. The chassis was extended and strengthened, and the windscreen was from a Ford Transit. Other than that, very little is known about them. Perhaps other members can add to the story.

On the subject of photographs, I have quite a few club photos and I am in the process of making up an album. Unfortunately, high colour photocopying costs prevent the club from issuing each member with a copy. Four postcard-size photos will fit onto an A4 sheet, these sheets being perfect for laser colour copying. Laser colour and black/white are the same price (around \$3.50 per A4 copy); ordinary photocopying does not come up to standard. I estimate there will be about eight pages and to make copies for each member would come out a bit expensive. Therefore the club makes up one set and this will be forwarded to all members in turn, each member deciding whether to make copies for themselves at their cost. There is no loss of clarity with laser colour copying, unlike the ordinary photocopying.

As you have seen in recent newsletters, Ken Patience has been responsible for some very innovative ideas, the portable homemade hydrolastic pump just one of them. He has sent in a few more suggestions/improvements and these will be included in this and future newsletters. This month's contribution is a solution to a broken direction indicator assembly — who hasn't experienced this? Also included are:

- Polyurethane bushes to replace the lower fulcrum bush. [Polyurethane is a unique, high quality urethane rubber which combines many of the advantages of rigid plastics, metals and ceramics with the extensibility and elasticity of rubber. Among its properties are an outstanding abrasion resistance, high load-bearing capacity, and a low coefficient of friction. In addition, it has high impact strength, elasticity, and a high rate of resistance to oils, chemicals, ozone, and radiation.]
- A MkII rear suspension slipflex alternative.
- A bush to replace existing ones on the engine-to-chassis torque rod.

The dies are available from Ken Patience and orders can be made through McShane Engineering of Glenroy in Victoria — orders to Ken who will take them to McShane. Forthcoming newsletters will include more of Ken's suggestions.

Another very welcome suggestion for windscreen wipers was sent in by Peter Jones. As the wiper arm rack starts to wear, the wiper arm arc gets longer, rubbing the body of the car. Later the clearance between the rack and the wiper arm wheels becomes so large that the wipers may stop working, especially during heavy rain. A quick and cheap fix is to slowly remove the rack after marking the top surface. Clean the rack and regrease. Before replacing the rack, turn the wiper control wheels 180° and replace the rack with the top side downwards. This puts completely unused parts of the rack and control wheels into service, prolonging the life of the wipers.

Wasn't that report on **Carbonflo** disappointing? I am sure that all of you were certain this product would have been the answer to using unleaded fuel if it every come down to it. Do not be disheartened. Mention was made in the last newsletter of Moreys Oil and this month will see a New Zealand report on Moreys. Up to now it was a little-known product, but I am happy to say it has been relaunched onto the market under a different guise — **Tru-Blu**. It is a very good product — one I can't praise highly enough having used it on two of my cars for three years with excellent results. It has lived up to the claims made by Moreys. The 'vacmatic' device is essential when using this UCL as it is designed to meter Moreys upper cylinder lubricant into spark ignition engines. The vacmatic achieves the necessary lubrication to the upper engine area that is lacking when using dry fuels such as unleaded, CNG and LPG. Moreys UCL is designed to keep the combustion area clean and give more power through more efficient sealing, better fuel economy, and easier starting.

While in Townsville recently, I was given a very novel tip by a taxi driver concerning premature rusting-out of the muffler. When fitting a new exhaust system, he would fit a grease nipple into the exhaust

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pipe just behind the gearbox and initially inject two or three pumps of grease. As would be expected, this produces a smoky exhaust for a couple of days but this soon dissipates. Two or three more pumps of grease during the following couple of weeks results in a corrosion-proof lining/build-up on the interior of the muffler, considerably extending the life of the muffler. He has used this method for years.

You will probably have heard of Ralph Nader — the USA consumers advocate who wrote a book during the last 1960s called **Unsafe at Any Speed**, a damning report on the then current US car production. In his book he states that the Morris 1800 built in the UK was the safest care of the time with its suspension, brakes, and body construction. He stressed the fact that, if the 1800 was involved in a head-on collision, the whole power unit goes under the car and not into the occupants.

Because space did not allow in last month's bumper newsletter, Andrew Downing's MkIII specifications appear with this issue. So too do the prices supplied by Ian Davey. Whilst speaking to Naim Hindhaugh recently about the Endeavour Rally, he told me that Des Powers (who entered an 1800 last year) has possession of Tony Falls' original London to Sydney Marathon 1800 (Car No 4) and is in the process of restoring it to the original rally condition. The other pictures which back onto Andrew's MkIII specs are of the interior and engine of Paddy Hopkirk's London to Sydney Marathon car.

A late tip received from Ken Patience is a beauty and one that must be included. A drawing is included showing how to adapt a diecast metal window winder from a late 1970s Ford Falcon to replace those plastic ones on the MkII which are so often prone to break — and almost impossible to get at the wreckers. Good on you, Ken!

In an eight-page letter, Neil Melville mentions that he has successfully sealed leaking garchange cables by liberally 'painting' them with SILASTIC 735 when clean and dry. Many more tips were included and will be featured in forthcoming newsletters.

**A Landmark in Canberra for the Landcrab:** Those of you who may have been in Civic at lunchtime on Saturday, 18 August, would have seen a wedding procession led by Austin 1800s. A few weeks ago our club was contacted by the prospective groom seeking a white MkI Austin 1800 to be used to transport the bridesmaids to the church; this was to compliment the bride who would be riding in an immaculate white MkI Austin 1800 which belonged to her late grandfather. There are not too many white MkIs around anymore, but we were lucky that Bill Wheeler has one and he kindly consented to do the honours. The weekend prior to the wedding a few of us gathered at Bill's place with car wash, chamois, armour-all, polish and tyre paint to spruce up the old girl. We were rewarded — the wedding day turned out to be a perfect winter's day with clear sky, warm sunshine, both of which have been lacking in Canberra in the past few weeks. Photographs were taken of this auspicious occasion and, of course, will be included in the club's album.

If you are looking for a good rearview exterior mirror to fit the driver's side door, then the exterior mirror from an HQ Holden is perfect for the job; it's very rugged and, more to the point, made of metal, being much better than those cheap Asian excuses sold in K-Mart and Big W.

The Canberra MG Car Club has organised an economy run for Sunday, 9 September, and details appear with this newsletter. If you have nothing planned, come along and meet some of your fellow members and, at the same time, enjoy a pleasant drive out of town with other enthusiasts. On the subject of car club events, now is a good time to think about preparing for the **All British Day** planned for November at Weston Creek. This is an event our club has participated in for the past two years.

The annual renewal for the ACT Council of Car Clubs is now due; it was decided at the last meeting to renew our membership with them (cost \$10).

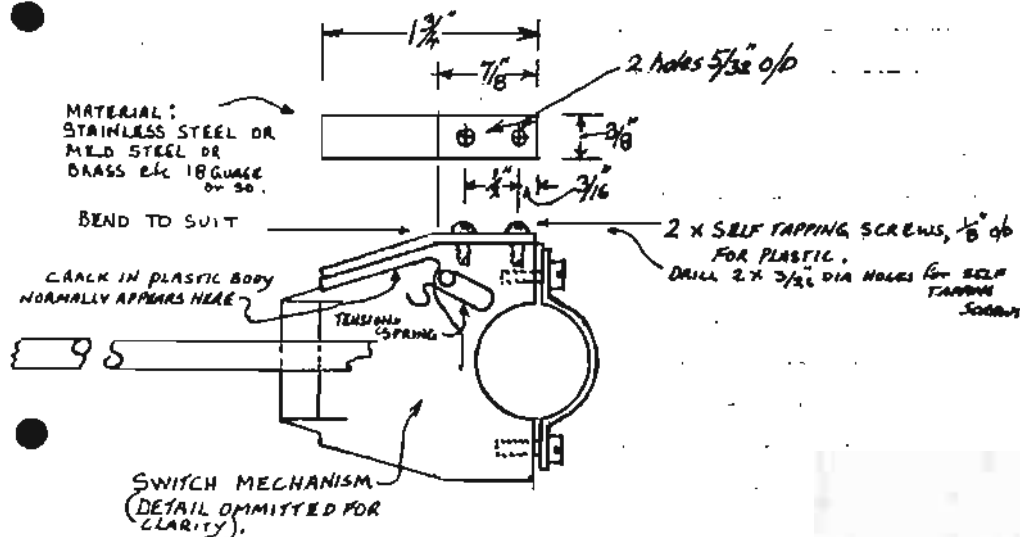
Due to the first Monday in October being a holiday in the ACT,

The **NEXT MEETING** will be: **Monday, 8 October, 7.30 pm**  
**The Canberra Yacht Club.**

See you there! Remember ... You're travelling First Class. **Mick**

SUGGESTED REPAIR FOR AUSTIN 1800 TRAFFICATOR SWITCH  
(TURNING INDICATOR LIGHT SWITCH) FOR WHEN SELF CANCELLING FUNCTION FAILS. IE PLASTIC BODY CRACKS AND TENSION ON MECHANISM FAILS. -COMMON PROBLEM.

REPAIR IS BY ADDITION OF STRIP OF SHEET STAINLESS STEEL TO STRENGTHEN THE BODY SO AS TO PREVENT DISTORTION BY MECHANISM. — "IT WORKS", AS FOLLOWS :-



VIEW OF SWITCH WHEN REMOVED

*This repair works!  
also reliable.*

## TECHNICAL DATA: AUSTIN 1800.



### OIL and GREASE RETAINERS

Years - Model (Application)	Repco Part No.	Replacing Mfr's. No.
<b>AUSTIN (PASSENGER)</b> 1964-on 1800 Transverse Engine)		
Front drive shaft, hub outer	P4812	BTB-595
Front drive shaft, inner	P4811	BTB9005 BTB-607
Steering rack	P3283	17H-3938
Water pump	P2619	13H-772
Clutch shaft, idler gear	P4813	13H2876 22H-673
Cyl. front cover (Timing cover), to March, 1966	P3141	2A-939 AYA-3041
March, 1966 - on	P6061	AYA-138 AYA-0138
Speedo pinion	P2621	AYH-3070
Crankshaft, Flywheel housing	P4978	13H-2457
Automatic:		
Front pump	P4519	27H-2308 17H-3304
Rear extension.	P4520	27H-3309
Differential cover (2 off)	P2505	AYH3165 22H-383
Rear hub	P4812	BTB-595

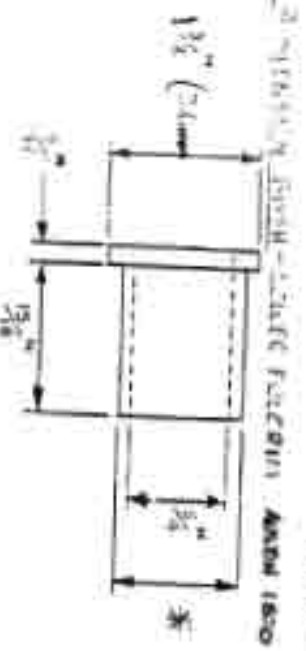
This item may be cut out or photocopied for placement in rear of workshop manual.



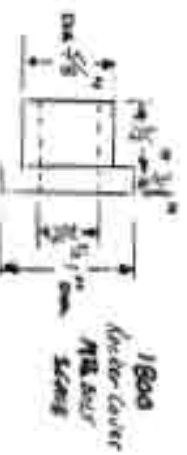
DIMENSIONAL DETAILS FOR MACHINING -  
(LATHE WORK) POLYURETHANE BAR STOCK, TO FINISHED  
COMPONENT. (DIECS NOT AVAILABLE AS YET)

## POLYURETHANE BUSHES

DIES FIELD BY W. PARTRIDGE  
MATERIAL: 70% POLYURETHANE OR  
FELIC... AS MACHINING COMPONENTS:

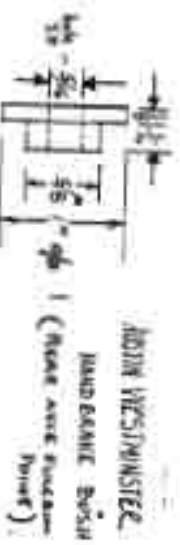
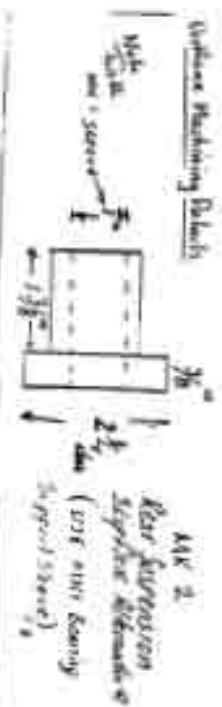


1.000 in. 1.111 in. 0.001 in. < 1.125 in. (21-1)  
1.111 in. Bush < 1.125 in. (28-1-1)



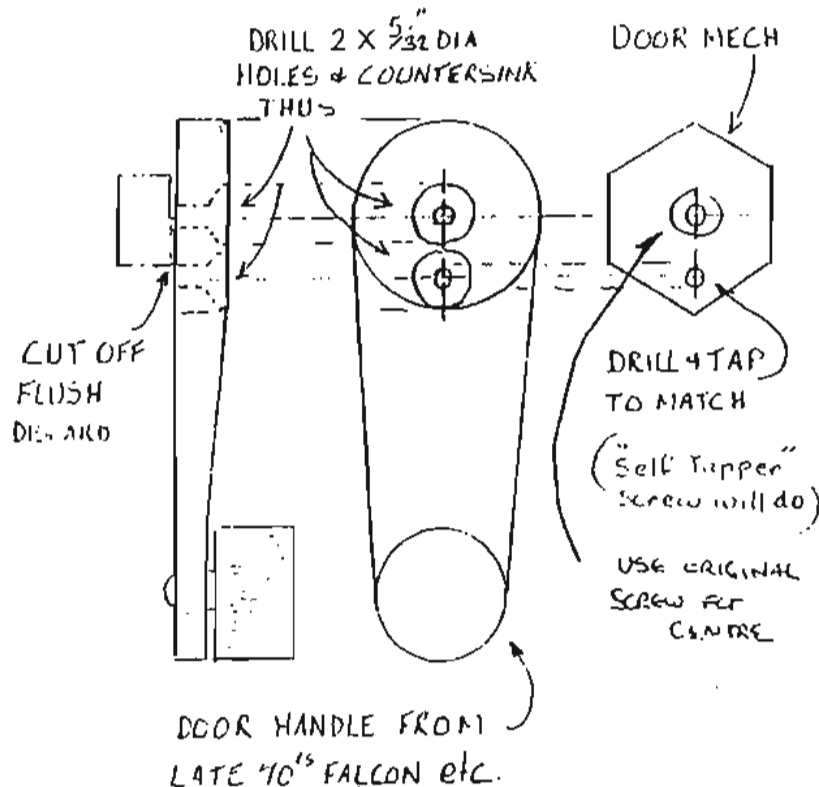
THIS IS THE ONLY  
VIBRATION TEST

WORK TEST  
AT PRESENT



Directly  
Machinability  
for section of polyurethane bush to suit  
engine to chassis Toyota Ltd (Q44 per car seat)





ADAPT DIE-CAST METAL WINDOW  
WINDERS TO REPLACE BROKEN  
PLASTIC TYPE FITTED TO MK2  
AUSTIN 1800's etc.

PATIENCE



MG CAR CLUB CANBERRA Inc.

P.O. Box 600  
Tuggerah A.C.T. 2602

SUNDAY 9 SEPTEMBER 1990

Council of ACT Motor Clubs'

## ANNUAL ECONOMY RUN

(Organised by MG Car Club Canberra)

Starts at 9.30am  
from the

CALTEX SERVICE STATION  
MARIBYRNONG AVENUE, KALEEN

The Proprietor of the above Service Station is offering  
cut price petrol for participants in the Economy Run  
so it is suggested you take the opportunity to fill up prior to the event.

The Run will be of approximately 50 miles - all on sealed roads.

Return to Kaleen Caltex Service Station where petrol tanks will be topped up (at your  
own expense) to ascertain the MPG of each vehicle in order to decide place getters.

Trophies will be distributed at the  
BYO BBQ lunch  
to follow

(approximately 12.30pm)

at

DIDDAMS CLOSE PARK  
LAKE GINNINDERRA

Please come and make this another successful  
Council of ACT Motor Clubs' event

# 1 SUCCESSFUL KIWI ATTACK ON THE UPPER CYLINDER WAR ZONE

1 more indepth look at the new Vacmatic lubrication system, perfected safely by New Zealander Lex Payne

By Bob Campbell, Editor

ONLY HALF A BRAIN is need to figure an engine should have two equal combustion pressures in its cylinders to deliver the goods, to run smoothly, efficiently, with near its ultimate power and economy. But it's not that easy in the top often overlooked War Zone of the upper cylinder area.

Look at what happens with the best of engines put together by the world's best mechanics, using the best components, for a medium long distance race like the Southern 500 or many others of equal distance. Horribly abused hot shot units dyno'd at 500HP will be delivering something like 450HP at the race's conclusion.

The upper cylinder area of an engine is where the power is generated, and the lower end does the work to transmit it all. Yet that lower end including camshaft is at getting lubricated by the engine's oil. The upper cylinder area remains, where it all begins, is "dry". Doesn't that make it damned tough on the valves and rings? Not to mention the spark plugs and the whole combustion area suffering from carbon buildup.

Alternative fuels like LPG and especially CNG are the driest you can imagine, causing untold wear rates in engines' upper areas and causing users to tear their hair out with head work repair bills. And of course at the lack of power with those dry alternative fuels. And don't feel snug if you're using the old stand by, our favorite petrol. Because the only "lubricant" petrol has is fuel which is doing more harm in other words, and it's falling out with head loss rate becoming more the norm instead of the want. Petrol engines are still suffering in the upper cylinder War Zone.

Remember, if you're old enough, when Dad used to play an only few pennies to have a shot at Redex awarded in his fuel tank at setting

time? That was maybe the start of an awareness that the War Zone was hurting the motorist. It progressed in random times in the stage where more than one Upper Cylinder Lubricant got on the market.

Some used devices which heaped a vacuum line into the intake manifold, employing various handbuilt upper cylinder tubes, but it the canister got installed while the vehicle was on a long haul tour the engine lost all its vacuum. Thus more damage could result than the device was designed to prevent. More's Oil in USA had an excellent upper cylinder tube derived from a really pure oil base, which was used in the fuel tank. Unfortunately the procedure did not carry all its excellent properties.

The answer was to inject the lubricant as a fine spray mist into the intake, but guard against the engine losing its vacuum if the tube canister got emptied. By 1985 a New Zealander was in the right position at the right time, with the right idea to perfect this. As usual, simply it was the key.

## LEX PAYNE, ORIGINATOR:

As a teenager Lex messed with model airplanes using engines up to 5cc, along with his friends, he graduated to making his own cylinder heads, pistons, and even crankshafts for the little buzzers. His interest in models has remained ever since.

During and just after World War II and just a young lad, he took his turn helping out on his family's corner Saultland farm, with the natural Kiwi ability in those circumstances of making an improvisation.

Everything came down to using and adapting what was available, for occasional applications. He could probably have known by then which grade of oil was to mix with kerosene for certain tractor gearboxes, instead of the age-old kerosene/oil mix.

His home-brewed knowledge of internal combustion engines and lubricants would enable him to look through a remedy for the upper cylinder War Zone, so many years later when it became needed.

After a few seventeen period of tuning a few-horsepower racing small engines, Lex found this led to an association with More's oil products. And then with this upper cylinder tube the do was set for the idea to use the right product, as he was in the right position at the right time.

His own prototype free runner of the Vacmatic device got tested on his '79 Falcon with a 2500cc six engine, and the results were startling enough for More's Oil in USA to get interested.

Lex patented his device, or more correctly his position which controls the knee-lead and guards against vacuum loss, and instantly he had a world wide network at his fingertips through More's Oil distribution contacts.

That was early 1985, when hundreds of Vacmatic units were sent hand made and shipped out rapidly through More's Oil agents in New Zealand. By mid 1985 a large Auckland CNG station using two 2000 Ford engines for CNG for pumping the main reservoir 15 hours per day looked on to Lex's device, equipped both engines with the system, and within a couple of months they'd removed 70 percent of their drastic head work repair costs and downtime.

Many followed, from individuals to private and local body authorities, and while some needed services weren't interested which is becoming more commonplace these days, an amazing amount of interest was generated in a short time. Accompanied by personal and demonstrated system, Lex was through the open but effective program NZ HGT ROD magazine became involved.

One of the magazine's sponsors for its Project T track machine looked the device

had one of these devices on his LPG powered V8 utility, which was a gem of city work and long distance touring. A very practical man who analyzes everything carefully, he is, and when he began racing we donated the product and watch evaluation.

Lex Payne made some. We purchased an unit, of which three were given out free and three for the private vehicles belonging to the crew for Project T. Our evaluations were on the basis of general observation of engine, chassis, handling, but they all have their individual place amongst the dyno test reports, so they're mentioned in the last section of this article.

As we go to press in late '85 for this January issue of NZ HGT ROD, Lex Payne's Vacmatic device is now being manufactured from high tech materials in plastic injection dies, no longer any defects are down to 3 in every thousand and those are destined by ship.

Vacmatic units are also being exported with success in Australia, U.S.A., Canada, Norway, Sweden, Holland, West Germany, Denmark, Singapore and Malasia.

## THE VACMATIC DEVICE:

Key part of the system is a vacuum capillary unit, designed to work under a wide vacuum range. Its vacuum is obtained by leading into a vacuum source, which can be either from the intake manifold which gives constant vacuum, or into some carburetor's vacuum line to the distributor's advance retard unit which only has vacuum above idle. Both are satisfactory.

Mounted higher in level with the distributor, the capillary unit gets fed by a small upper cylinder tube canister nearby, mounted lower.

So, the unique capillary device is between the intake and the tube container in the system. It gets operated by whatever engine vacuum source, let's say an average of 17 inches of vacuum, from the intake. Yet it only draws from the tube container with less than one inch of vacuum. That's the secret to this system, that's if it needs, and that's why an engine will only draw less than one inch of vacuum if equipped with the Vacmatic, and if it runs out of fuel. And that small drop in vacuum will not affect any engine in any appreciable degree. Fuel mixture will not lean out.

At bottom of the capillary device is a Phillips-head screw for adjusting the rate of tube discharge into the engine. This also acts as a fuel filter which screens the tube for even dirt holes into the engine's intake. Moreover the capillary suck from the tube container gives a certain "drops per minute" rate into the capillary unit's chamber, and this is altered to suit an engine's size by the screw adjuster.

## VACMATIC'S BENEFITS:

Basically, it shows you that the Vacmatic dispenser will More's Oil lubricant will increase power, economy, performance, plus promote smoother running with less carbon buildup and less spark knock. The claims are valid, because all those spheres of an engine's running are

more dependent on such areas as vacuum, ignition.

Devices are made up for several of them, and also that an engine needs more regular maintenance and oil changes to deliver the goods. Consider another. It's a common one to do the oil, where signs of petroleum's system rings, valves not moving properly, the other "good" systems will be impaired by the stick and a critical pressure during the stroke cycle. And the resultant interference during piston are hurting the engine's efficiency, contributed to the very cylinder's wheel change.

If you had longer carburetors and intake runners for each fuel port, and the carburetors weren't equally matched or tuned, you'd need a balance tube linking the runners to equalize pressure. That's what the Vacmatic does, it does. If high lubricates and provides an even cylinder's wall with carburetors and intake's the combustion pressure. Let's run through each section.

**INCREASED POWER:** This results from lubricating the combustion pressure thus providing more smoothness, less compression ring sealing and valve seating, as well as providing a more complete burn of the fuel to more fuel efficiency.

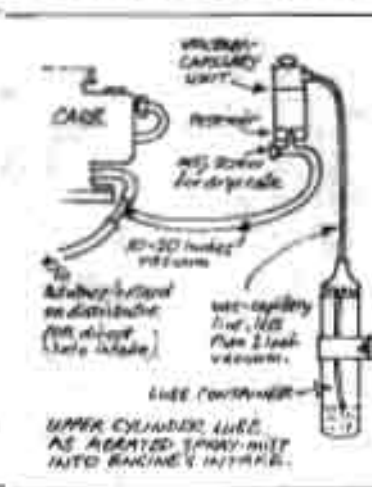
**STOPPING SPARK KNOCK:** A cleaner engine with less carbon buildup, and run better and more balanced carburetors and membranes, prevents knock. Combustion more effectively with better sealing and adds better flow.

**SMOOTHER RUNNING:** More equally lubricated and lubricated intake upper cylinder areas provide this. Another by product and a pointer to this, is that many of engines equipped with the Vacmatic don't get appreciable oil film, if oil and thus the idle speed and mixture can be raised.

Continued page 18



Left: Auckland's Lex Payne, originator of the Vacmatic capillary device which allows a regulated supply of upper cylinder tube directly into an engine's intake despite a wide vacuum in vacuum, and which guards against engine damage from loss of vacuum. A lengthy background of experience in small engines and lubricants enabled him to devise the idea, and perfect it in a practical way. Right: the basic steps and function of Lex's system.



The first photo published in the Vacmatic Lubrication System components and packaging shown in 'Vacmatic' column of NZ HGT ROD November. At time, the unit was on capillary and is proved most brilliant high

## THE UPPER CYLINDER LUBE ZONE

continued from page 15

**LESS CARBON BUILDUP:** Slipping carbon buildup, and especially its reformation, is characteristic of the lubricant. This inter-relates with all other sections, as being cleaner means more efficient, and of course carbon buildup retards heat. Without it an engine runs cooler. An important quote from the manufacturer is that the system will "keep new engines clean and clean up old engines." Tests have proved that it will, indeed, remove carbon deposits in an older engine.

**BETTER ECONOMY & PERFORMANCE:** These naturally result from a combination of all the former attributes. The same rate of acceleration as beforehand (when the engine was "dry") can be accomplished with less throttle, and manually changing up through the gears earlier at less engine rev's. Automatic transmission vehicles with a throttle kick-down to regulate changes will also change up gears at less throttle, earlier.

## TESTS RESULTS:

We equipped the following cars with Vacmatic. Two HQ Holdens with 202 engines reassembled 6,000 miles previously. 350 Camaro with heads needing a valve job. 318 Valiant automatic in top condition. 4 cylinder Datsun running well at 120,000 miles. HQ Holden 202 on 80,000 miles. All these were on petrol. The test began near mid-winter and all cars

immediately showed advantage in cold morning starts. They fired quicker with less or no choke, idled smoother, stalling was eliminated, and with no warm-up time they could be driven off with no choke.

In built-up areas they seemed to have unlearned another cylinder. The Holdens only needed 2nd gear for starts, unless uphill. Steep driveways which needed 1st gear before, could now be taken in 2nd. In suburban driving the Datsun could be driven one gear up on corners and intersections, and was one gear up on hilly terrain pulling a loaded runabout.

For open road commuting, the V6 Valiant had the most consistent daily route and it was in best condition of the vehicles. It showed a 10 percent-plus improvement in economy with a high of 13 percent, saving the owner \$5 per week. Second most consistent route was for one of the Holdens and it averaged a 7 percent gain. The Camaro's shabby idle improved immensely, as did the idle speed, and general road performance improved 15 percent.

Once installed, the only cost of servicing the vacmatic is Moxey's upper cylinder lube packs. Discounting the obvious performance benefits and avoidance of head wear and work, the cost of the lube was offset many times by the saving in fuel. Rising from 20mpg to 22mpg may not seem so significant, but that's 10 percent and over each month it amounts to a very considerable saving.

## SIGNED COMPARISON REPORTS:

1973 Rover 3.5 V8 auto, 55,000 miles, on CNG.  
 before fitting after  
 Engine idle speed in Park 500rpm 470rpm  
 Engine idle speed in Drive 420rpm 425rpm  
 Measured 1/4 mile 16.0sec 15.5sec  
 (72.4kph)(88.5kph)  
 Full tank range on CNG 128.8km 144.9km

1973 280E twin GNC fueling Mercedes, on Petrol.  
 before fitting device after  
 3rd gear misfire began at 120kph gone  
 3rd gear maximum speed 140kph 160kph  
 idle vacuum (inches) 15.0 16.25  
 Other advantages: better cold starts, more torque, cooler water temp.

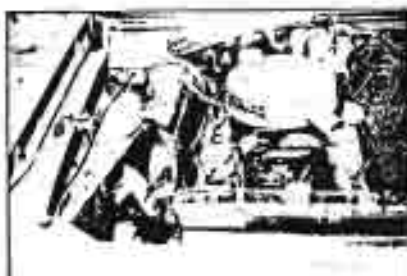
## DYNO TEST REPORTS:

Holden 1-ton Utility with 350 Chev. Turbo 400, mileage on rebuilt engine 19,263 miles, test by Fenners Marine Ltd, Napier.  
 H.P. output on CNG:

Speed	H.P. Standard	Movert in eng & trans	Percent increase	With Vacmatic	Percent increase Total
30mph	68	75	10.29	76	11.76
40mph	82	89	8.54	93	13.41
50mph	98	104	6.12	108	10.20
			average 8.32		average 11.79

Full tank range on full tank improved by 12%.

Chrysler Alpine GLS, 163,000 miles, on petrol, test by Fenners Marine Ltd, Napier. Before and



Illustrating the freedom of choice in locating the Vacmatic components in various engine compartments, these photos show the lube container A, vacuum capillary unit B, and point of entry into the intake C. Three cars we equipped here are Camaro above, Valiant 318 above-right, Holden 202 5/c below.

after adding Moxey's heavy duty oil stabiliser to engine and fitting Vacmatic unit. 250km run between tests:  
 before after  
 Hydrocarbon parts/miles 1600 600  
 Carbon Monoxide percentage 5.5 5.5  
 Exhaust tailpipe colour black grey  
 Idle characteristics rough smooth  
 H.P. increase 4.5 percent  
 Fuel economy increase approx 15 percent  
 Other observations: Reduced tappet noise, exhaust smoke at high rev's eliminated; oil pressure raised from low to normal; easier starting, improved idling smoothness from idle valve guide oil seepage reduced dramatically.

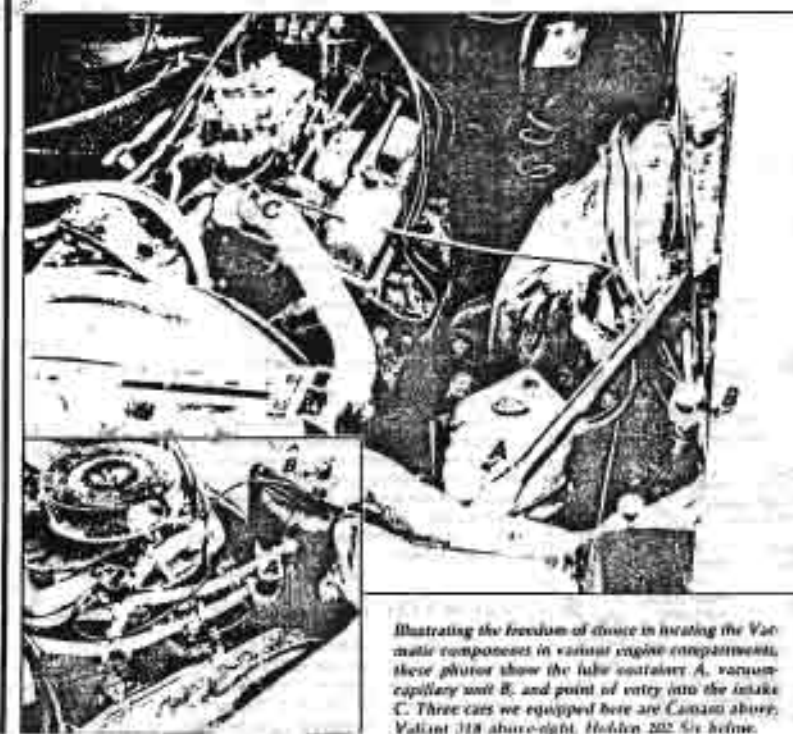
Mercedes 1300 1600 run, on CNG, test by CNG Installation (Oxford), 700km run between tests before and after fitting Vacmatic device:  
 before after  
 Idle speed in 1st P.M. 750 760  
 Carbon Monoxide % at id. 0.5 nil  
 H.P. at 80kph (50mph) 44 45  
 Torque at 80kph in 4th 280ft lb 295ft lb  
 Carbon Monoxide % 80kph 1.1 0

Local body authority dyno test on Mazda B1600 dual-fuel system, H.P. figures shown before and after fitting Vacmatic device, plus percentage loss of H.P. when switched from petrol to CNG.

Top Gear	Petrol H.P.	Cng H.P.	H.P. % loss
Speed before/after	before/after	before/after	
40kph	18 25	10 15	27.7 18.6
50	24 31	19 22	20.8 8.3
60	30 35	26 29	13.3 3.3
70	35 38	31 38	11.4 2.8
80	41 45	37 43	9.7 4.8
90	43 52	41 47	4.6 9.3
100	45 55	41 48	8.6 8.8

Note: Figures in bold print indicate that from 70kph onwards, the vehicle developed more horsepower on CNG with the Vacmatic device fitted, than what it did on petrol in standard condition without Vacmatic device.

CONTACT: Vacmatic International Ltd, PO Box 4285, Auckland 1, New Zealand.



Protecting your **UPPER CYLINDER ROT!**

**hot rod**

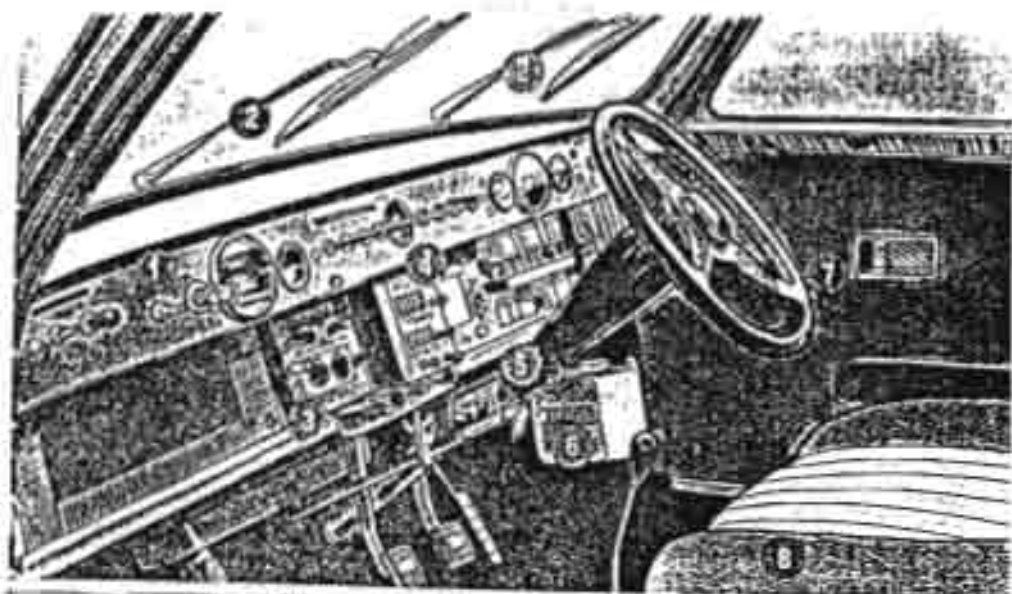
NEW ZEALAND

NEW ZEALAND'S LOWEST GENERAL

FEBRUARY 1984

OUTBACK OIL PTY. LTD. 720-4400  
 UNIT 3, 59 JERSEY ROAD  
 BAYSWATER, VIC. 3153

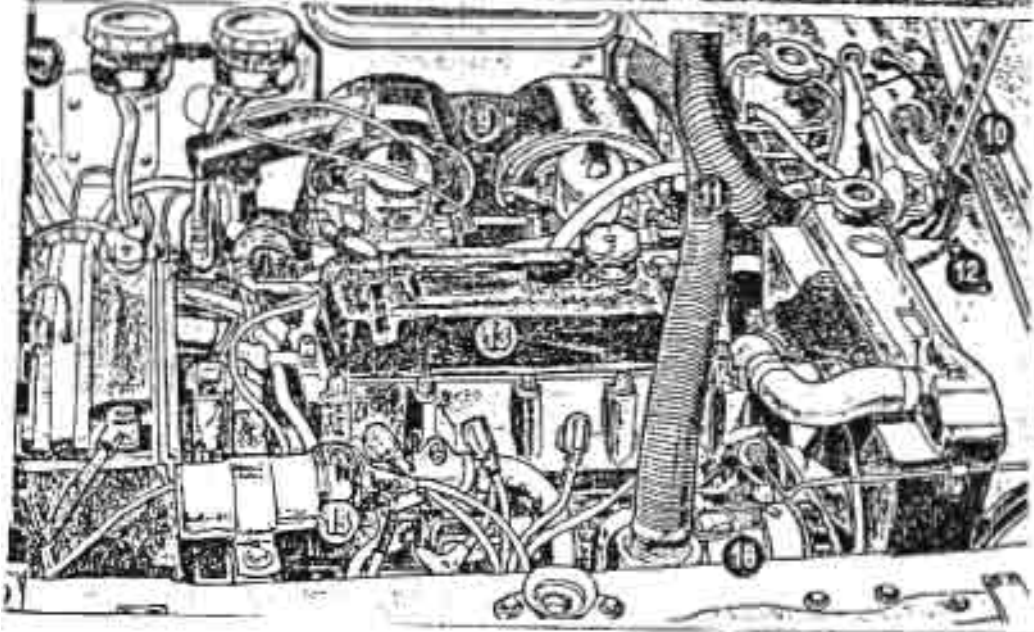




## THE INTERIOR

This is a view of the dashboard of the 1800 we drove to Sydney, showing all the changes we made for the marathon.

- |  |   |
|--|---|
| <b>1. DUPLICATE INSTRUMENTS</b><br>The co-driver can watch these while the driver watches the road.    | <b>5. ADVANCE-RETARD LEVER</b><br>With this we could alter the engine timing while running. |
| <b>2. AEROFLOWS ON WIPERS</b><br>Wind pressure on these flaps helps to press the blades against glass. | <b>6. SCREEN-WASHER BOTTLE</b><br>This was inside for easy access and refilling.            |
| <b>3. TWIN-DIAL CLOCK</b><br>We used this for timing sections of the route.                            | <b>7. STEERING WHEEL</b><br>This was leather covered for a comfortable grip.                |
| <b>4. DISTANCE METERS</b><br>These recorded distance in miles for all or part of the route.            | <b>8. BUCKET SEAT</b><br>It was covered in wool for warmth and comfort.                     |



## THE ENGINE

- |  |   |
|--|---|
| <b>9. TWIN CARBURETTORS</b><br>The air filter has been removed for this picture. | <b>13. CYLINDER HEAD</b>  |
| <b>10. BONNET STAY</b><br>Pierced with holes for extra tightness.                | <b>14. SEALED BATTERY</b><br>With breather tube to let air flow in. |
| <b>11. AIR HOSES</b><br>Connected to the inside of the car.                      | <b>15. HIGH TENSION COIL</b>  |
| <b>12. CAP CHAIN</b><br>To prevent the cap falling or being lost.                | <b>16. ALTERNATOR</b><br>Wired for emergency use with dry battery.  |

**AUSTIN 1800 MK 111**

YEAR OF MANUFACTURE: 1973  
 COLOUR: Crystal White  
 CHASSIS NO.: AH4SE-91828A  
 ENGINE ON.: 18H651AA-H11923  
 REGISTRATION NO. NOH438

**CAR SPECIFICATIONS****ENGINE**

COMPRESSION RATIO: 9.5:1  
 TORQUE: 106 lbf. ft. (14.58 kgf. m.)  
 at 3000 rpm.

PISTONS: MGB .030" oversize  
 No. of rings:  
 2 Compression  
 1 Oil control

VALVES: INLET: 1.630" (41.4mm)  
 EXHAUST: 1.348" (38.88mm)

VALVE SPRINGS: Single (valve bounce 5700 rpm)

CAKSHAFT: MGB Standard  
 INLET VALVE:  
 Opens 18 B.T.D.C.  
 Closes 58 A.B.D.C.  
 EXHAUST VALVE:  
 Opens 51 B.B.D.C.  
 21 B.T.D.C.

TAPPETS: Light weight bucket (thimble) type  
 with radius base.

TIMING CHAIN: Double-row chain & sprockets (used  
 on early type B series engines)

CRANKSHAFT: Machined 0.010" oversize bearings  
 Balanced with:  
 Harmonic Balancer  
 Clutch Pressure Plate  
 Connecting Rods  
 Pistons

CONNECTING RODS: Horizontal split big-end, solid  
 small end  
 Locking method - Multi-sided friction  
 nut (no locking tabs as they give  
 false talk readings & compress with  
 age)

CYLINDER HEAD: 1800 V series (no promontory between  
 valves)

CARBURETTORS: Twin 1 1/2 H4 50 (from an MGA)  
 Needles: st B  
 Spring: Re

**DISTRIBUTOR:**

Lucas 45 D4 (modified - no vacuum  
 advance - MGB stage 4).  
 Centrifugal advance:  
 8 B.T.D.C. @ 600 rpm  
 18 B.T.D.C. @ 2000 rpm  
 34 B.T.D.C. @ 3800 rpm  
 (full advance)  
 Dwell angle 60  
 Point bounce 9000 rpm

**STARTER MOTOR:**

Solenoid type

**ALTERNATOR:**

35 amp with built-in regulator  
 (to be uprated to 55 amp to support  
 470 watt light output)

**GEARBOX**

FINAL DRIVE RATIO: 3.8 : 1

ROAD SPEED @ 1000 rpm: 18.2 m.p.h. (29.3 km./h.) approx.

GEAR CHANGE UNIT: Single rod Push/Pull (no cables)

DRIVE SHAFTS: Needle roller joint & sliding  
 spline (type use in automatics)

**GENERAL**

SUSPENSION: Displacers: heavy duty (similar to  
 the type used in the rally cars &  
 Austin Kimberley's)

STEERING WHEEL: 14" - 3 Spoked MOTO LITA leather  
 sports wheel (hub is the same as  
 mini)

WHEELS & TYRES: 14" x 175  
 Trim: slot type (same as 13" Mk. 1)

BRAKES: Girling master cylinder single with  
 no reducing valve

EXHAUST: Free flow sports muffler with  
 1 3/4" tail pipe, standard  
 manifold & engine pipe.

LIGHTS: Head lights - 100/80 watt H4 Hells  
 Driving lights - 135/90 watt PIAA 8"  
 halogen lamp with lead crystal lens

HAND BRAKE: Centre pull (ie. between front  
 seats)

COLUMN SWITCHES: R/ Side - Indicators, horn, high/low  
 beam & high beam flash.

L/ Side - 2 speed wiper & electric  
 washer. (T.C. Cortina)

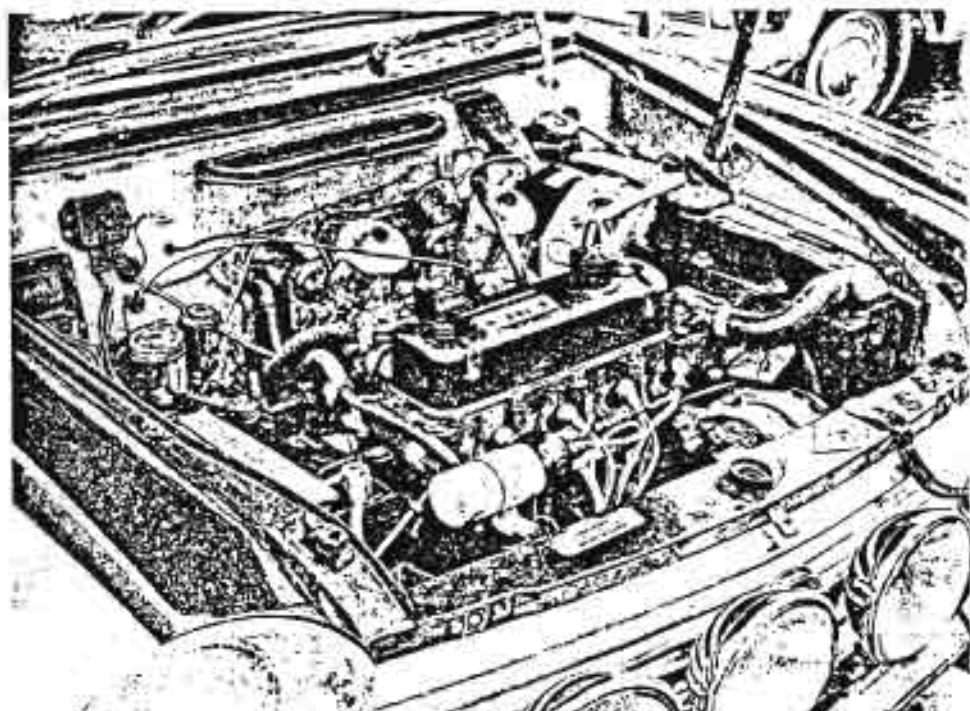
SEAT BELTS: Inertia reel

ADDITIONAL INSTRUMENTS: Smiths tachometer 8000 rpm  
 Smiths oil pressure 100 lb.

RADIO/CASSETTE: Pioneer 4 way 60 watt digital  
 stereo

# Special Tuning topics

Some helpful hints from British Leyland  
Special Tuning Department  
Manager BASIL WALES



Engine of the Special Tuning Morris 1300 tested opposite. Massive 7-in SU's provide the breathing for this 130-plus-bhp masterpiece

When an owner finds it necessary to write to the Factory to complain that he cannot obtain a particular British Leyland Special Tuning part over the counter he is naturally concerned, but sometimes the problem is of his own making.

Firstly, it is essential to ensure that you are trying to obtain these parts from an accredited BMC Service or Stanpart stockist, depending on the make of your car. The correct premises will display the appropriate sign. Only Distributors can order parts direct from the factory, so it may be preferable to see from local advertisements or the manufacturer's list how near your particular Distributor is. Many good Dealers carry an excellent stock of parts and may be keen to give owner/enthusiasts a first class service by keeping a stock of Special Tuning parts as well as their normal range. Special Tuning parts are marked by a special prefix, C— on BMC parts or S9— on Standard-Triumph parts. This prefix and/or part number must always be quoted in order to assist correct ordering.

The correct Part Number can be obtained from the Special Tuning Data Sheets, or in many cases from the manufacturers' Parts Lists. The exploded views and lists show the arrangements of all components, which may often be a great help when dismantling parts or checking what will be required when a major overhaul is contemplated. The actual dismantling and assembly will normally be fully detailed in the comprehensive Workshop Manuals published by the manufacturers. Care should be taken if unofficial handbooks are purchased since manufacturers' recommendations are often subject to change in the light of further knowledge, and unofficial copies can never be kept up-to-date. Owners may buy both the official Workshop Manuals and the Parts Lists, but these may have to be ordered specially through a Distributor, as they are seldom kept in stock.

Having found the correct part number which you require, the part may be one that is not regularly used or a new Special Tuning part which you have just read about in *High Road*. Spare a thought for the harassed Parts Manager who can never hope to have every part in stock that the works can produce. If you want him to get a part for you that he does not have in stock, make it clear that you definitely intend to buy and if necessary leave a deposit. This is just to reassure him that his parts counter will not become blocked high with parts obtained specially for customers who never returned! Unfortunately, claims also arise where the works may be temporarily out of stock of some vital part which delays your rebuilding. Despite what a dissatisfied customer may think, the works will be doing all it can to obtain the part. Remember also that the works may be the customer of an outside supplier on

assured that the part will be supplied just as soon as possible on the fairest first-ordered first-served principle.

If you are planning a season of competition motoring try to consider your own spares requirements in advance, so that you have a few likely spare parts at hand ready to fit rather than run the risk of being held up for a gasket set or some other such part which you are likely to need several of during the season. The sooner you buy a part the cheaper it is likely to be, the way that costs are rocketing nowadays!

## Special Tuning Literature

The field of competition preparation is never at a standstill. What was written yesterday and typed today is about to be improved upon tomorrow, so it is not very practical to go to press with a hard cover book. This would need weeks of preparation and the cost of setting up the type would mean that a large quantity would have to be printed in order to make the price economical. This is the reason why the Special Tuning Data Sheets are in loose leaf lithographed form for speedy printing. Sets of sheets are stapled together in small batches so that anyone buying any Tuning Booklet is getting the most up-to-date information available. See the table for the appropriate models and part numbers already covered by Special Tuning Booklets. For garage use or people dealing with several models it is possible to buy a ringed plastic binder Part No C-AKD 5061 and a full set of index dividers Part No C-AKD 5093, to take a complete set of Special Tuning Data Sheets Part No C-AJL 3333.

## Brake fluid

Surely brake fluid is one of the most neglected topics on a modern car! What is not generally realized is that on a disc-braked car, the fluid comes very near to the heat-generating pads, whereas on drum brakes, the fluid is much further from the linings. If the fluid reaches its boiling point, the resultant vapour is very easily compressed, bringing on a very spongy pedal until temperatures drop a little. Any contamination in the brake fluid will lower the minimum boiling point of the fluid, so a trace of water will reduce the boiling points to 100-deg C. For satisfactory use in drum braked cars, the boiling point should be over 200-deg C, so is your fluid safe?

The official recommendation is that brake fluid should be changed completely every 18 months or 24,000 miles, whichever is the sooner. All fluid seals in the hydraulic system and all flexible hoses should be examined every three years or 40,000 miles whichever is the sooner, and renewed where necessary. It is essential to use the correct or better fluid, and the fluid for disc-braked cars can be used universally. For cars with Lockheed disc brakes, look

and mixing any other fluid could cause serious trouble.

On cars with Girling brakes, use only Castrol Girling Brake Fluid Amber; the Amber is particularly important. Refer to the vehicle handbook to check which fluid to use, or look for the maker's name on the lid of the master cylinder. The clutch cylinder can be topped up with the same fluid.

Never leave fluid in unsealed containers, as it absorbs moisture quickly, thus lowering its boiling point. Fluid used for bleeding or drained from the system should never be re-used and is best discarded. Absolute cleanliness is essential at all times, but care should be taken to keep the fluid away from bodywork as it soon cleans the paint off!

If new pads or linings are fitted shortly after topping up, remember to syphon off some fluid, otherwise the displaced piston will make the fluid overflow all down the engine compartment.

When changing the brake fluid completely, pump all the fluid out of each bleed screw, and flush through each with new fluid. Ideally, the calipers should be disconnected from their mountings so that all the old fluid can be drained, and then filled in this way, with the bleed screw uppermost, to get all the air out. Once the system has been flushed out with new fluid, the normal procedure for bleeding each wheel should be followed. Do not forget the brake servo from these operations, as it may need to be bled separately. One further word of warning. Do not split the brake caliper, even if one piston is partially seized. Preferably use the correct 'G' clamp to retain the opposite piston, and use the hydraulic system to expel it. If the correct tool is not available, leave the pad in the free side, but use a conventional 'G' clamp to support the brake disc whilst expelling the piston requiring attention. Replace the piston and pad before removing the next pad and piston.

## Special Tuning Booklets

Model	Part No.	Price*
Cooper S (970, 1071 & 1275-cc)	C-AKD 5096	2s 6d
Sprite/Midget 1275-cc	C-AKD 5098	2s 6d
850 & 998 Mini, 997 & 999 Cooper	C-AKD 5099	2s 6d
1600 range	C-AKD 5122	2s 6d
1100/1300 Transverse		
Saloon range	C-AKD 5121	2s 6d
MGB Tuning Book	C-AKD 5134	5s 0d
Sprite Mk1 & Midget 948-cc only	C-AKD 5075	2s 6d
Sprite/Midget 1095-cc models	C-AKD 5107	2s 6d
MGA 1500-cc & 1600-cc	C-AKD 5119	2s 6d
Triumph Spitfire	96-12100	2s 6d

\* Prices include postage.





# LANDCRAB

Page 12 & 13  
added to road test



Number 29

Landcrab Owners Club of Australasia

October 1990

Eight of us attended the September meeting with an apology from Len Eastwood. New membership was received from Jenny and Michael McMahon who, you may remember, were married last month with two 1800s leading their wedding procession. They have kindly donated \$100 to the club in appreciation for our efforts in providing an identical white Mki 1800 for the wedding. The car belonged to Bill Wheeler who also kindly consented to act as chauffeur.

Jenny and Michael McMAHON 17 Bingley Crescent (06) 258 7353 Mki Sedan (auto)  
Fraser ACT 2615

A couple of members, notably Pat Farrell, have raised the subject of a committee for the club. As yet we do not have one, nor are we incorporated. When the subject was broached at the last meeting it met with a nil response. This, of course, does not mean we should not have one. The club and committee could be run on a similar basis to that of the Austin A90 Atlantic Club — their committee is made up from all states with an annual get-together held at a mutually-agreed location. Pat has offered to act as President and Mick Oates would be prepared to act as Treasurer; I would continue as Secretary/Newsletter Editor. Your comments are invited.

We received a short note from Bill Fraser (UK Landcrab Owners Club) expressing his regret at the long delay in dispatching our T-shirts and parts. He has assured us they will be on their way shortly.

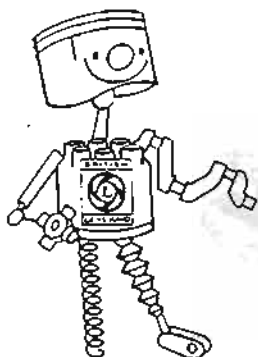
At the last meeting it was suggested we send Ken Patience some club money to have him make up his polyurethane bushes. The club will then hold a small stock of each type for the use of all members as they need them.

The club balance currently stands at \$360.78, a sizeable sum for a small club such as ours. As we are a fairly non-social group, at least in the Canberra region (we don't take part in club runs, rally events, and the like — as the recent Economy Run attests as not one of our members participated), we should decide as a club how to use our funds. Whatever is decided, use of club funds should benefit all members. At present the cost of producing the newsletter is kept to a bare minimum, with the main expense being postage. Perhaps we could make up our own T-shirt design or a club badge? Should anyone feel motivated, please submit your suggestion(s) and design(s).

In the two years plus since our inauguration the newsletter technical tips and information has never ceased to amaze me ... and still they come. We have enough material at the moment to fill newsletters to Christmas and beyond (thanks to Ken Patience, Peter Jones and Neil Melville, to name a few). However I have received some comments regarding some of this information — it must be remembered

that input to the club is more important than 100% accuracy. Of course there will be discrepancies with different experience, remedies, and priorities. Different solutions to the same problem give us a choice as well as a bit of controversy; it may motivate membership to greater involvement.

items of interest featured this month include a suggestion for the refurbishment of ball joints, relocation of horns, a quick fix for leaking gearchange cables, and details of polyurethane radiator mount vibration bushes (all supplied courtesy of Ken Patience). Other articles include a universal joint repair and a feature entitled "LandCrab — Not for Crawlers". Neil Melville sent in many comments and they are reproduced here exactly as he outlined them in his letter to the club:



Rycos Z23 (MkII) oil filter differs from their Z30 (Holden) filter in two ways:

- The oil retained that you mentioned.
- Additionally it has a bypass valve incorporated.

Holden HR rear brakes differ from the 1800 PBR in that the cylinders are different and the shoes from the HR car and wagon are different at the top to the 1800 shoes. This difference is to accept the different cylinder and push rod.

HR ute and van have a 50% wider shoe HRA optioned with front discs, had the same piston servo unit as the early 1800s, and the calipers appear very similar. If the piston sticks in these servos it can be freed by removing the little air filter and trickling about an egg-cup of brake fluid into the filter aperture while an assistant pumps the brake pedal with engine running.

Most early utes had the big bore master cylinder and rear wheel cylinders (with  $\frac{7}{8}$ " cups similar to HR Holden). Most cars and late utes had the small bore master cylinder and a mix of  $\frac{7}{8}$ " and  $\frac{13}{16}$ " wheel cylinders. Some very early MkII cars had GIRLING three piston calipers. It is sometimes cheaper to buy a changeover caliper than the parts to fix it as sales tax does not apply to new parts used in a reconditioned component.

I use individual rings to replace caliper seals and fill any pits in the chromed pistons with Plasti-Bond and use rubber grease copiously. If PBR brakes back-pressure with a high, hard pedal causing discs to drag it is usually a softened master cylinder cup on the primary piston stretched to twice its normal length, blocking the compensating port into the disc brake fluid reservoir — or a lack of pedal free travel which can be compensated by extra spacers between master cylinder and firewall.

The last of the 1800s had the X6 gearcables sealed against engine oil but, when the seals go, oil gets into the cable(s) and can't get back readily past the seal causing "hydraulic" against the first and third gears. With this problem you have three choices:

1. Replace the seals and cable(s).
2. Remove the seals.
3. Drain the cables occasionally by raising the front of the vehicle and draining the surplus oil from the reversing light switch plus in the remote housing.

I have successfully sealed leaking gearcables by liberally "painting" them with Silastic 735 when clean and dry.

Our MkIs are stiff to engage second gear cold so we park them in second gear; our late MkIIs tend to "hydraulic" third so we park them in third gear.

MkIs have different and coarser primary drive gears to the MkII (19 teeth versus 24) which causes a tinny whine at low speeds through the gears, particularly in hot weather — nothing to worry about even when the noise increases with mileage.

MkI clutch pressure plates have a weak thrust area which self-destructs and should be replaced with MkII or exchange units. Clutch master cylinder push rods can be usefully lengthened to keep the pedal

out of the carpet ( $\frac{1}{4}$ " optimum).

When starter ring gears wear, I knock them off the flywheel and reverse them after angling the teeth' 'new' leading edge with a 4" angle grinder and cutting disc, or worn grinding disc. I make engine mountings last longer by rebonding with Silastic 735 before they are too far gone.

A sagging radiator can be adjusted to clear the fan by fitting a Holden accelerator turnbuckle between the speedometer drive end plate and the lower radiator bracket rear corner hole — particularly on rough roads. [Your tip on engine breather vacuum overcoming oil leaks would be risky in dusty conditions because, with heavy equipment, severe wear of seals and seal bosses occurs with engine vacuum conditions.]

Holden thermostats fit the 1800 — and the old water pumps with "oiler" outlast greatly the "sealed bearing" pump IF oiled regularly. A variation on your tip of welding the exhaust clamp boltheads to the clamp is to weld a  $\frac{1}{4}$ " rod from bolthead to bolthead.

There are several makes of vehicle with a ball joint "flexible" in their exhaust pipe but, unless you're a leadfoot or have a crook engine tie-rod, there isn't need for a flex. We have operated two cars/two utes for over 10 years without, and without breakage. We've had no experience with the crook Indian rubber universals but SUPRA (ex UK) in yellow box were faulty and soft — MOPROD (ex UK) in red box are well made if slightly soft (but soon harden) — and the best is CAR PARTS CO (source unknown) in white box. The white nylon cross is excellent but the black plastic one is weak and unsafe.

X6 two-speed wipers can be fitted using an 1800 headlight switch for the three positions.

To replace the dash top vinyl:

1. Cut the old vinyl around the ends, demisters, and screen with a sharp knife. This can be used as a template (if still workable) for new stronger reinforced vinyl. [If you want a paper template copy, let me know.]
2. Secure or replace foam underlay and, with two people and Selleys Gel-Grip (In various-sized tins, tubes are dear!), glue in place **BEFORE** glue is tacky to allow adjustment.
3. Allow 24 hours for 'bubbling' of the vinyl to subside, rubbing it down occasionally.
4. You'll end up with a tidy 90% job.

When the MkII windscreen washer bottle becomes brittle, replace it with a detergent squeeze-pack and mount the horns up near the master cylinders.

To keep rust at bay I am grease and oil happy — grease all fuel, brake and suspension pipes (but not hoses!) including the rust-prone bulkhead and pipes behind the engine, paying attention that water has not rusted the pipes inside the plastic sheaths covering them under the floor section. Every 10 years I do inside the doors and fuel filler flap, bonnet and boot lid extremities with Fishollene/Killrust/Pioneer Fish Oil, grease or oil window winders/door locks (also inside ute tailgate), and half fill the door sills with used gear oil and jack the vehicle to and fro to keep the oil level high without staining the floor mats. I use ice cream containers to catch this oil as it drains then tip it into the hollow panels behind the back wheels with attention to the wheel arches. Then, with funnel and hose through the holes below the front displacers, I fill the front subframes, the crossmember below the grill, and the sill below the boot lock. Pressure-pack Fishollene gets into other awkward spots like the back of the front mudguard. I vaseline all bolts and screws on reassembly, also lightbulb sockets and electrical connectors, and (where possible) inside electrical switches to prevent arcing and oxidizing of the contacts (eg MkII rocker switches).

In the late 1800/early X6, Leyland fitted some imperfectly-curved windscreens which have flat spots and require a more supple wiper rubber, for which the early MkI is ideal. Our two utes have this problem but we're almost out of MkI rubbers as we have been unable to procure them (even ex UK) for the last 5 years. Please advise if you sight any.

An aspect of hydrolastic suspension that is rarely mentioned is that it is the only springing medium that tightens with speed, giving a soft ride at low speed and stable high speed — even Mercedes/BMW ride like a dray at low speed!

No doubt at some time or other you have suffered the squeaky brake syndrome where the disc pads do not quite return fully, continuing to brush against the disc, resulting in the annoying squeak. Frustrating, isn't it? There is, however, a simple and quick remedy for this. Remove the small clips, withdraw the disc pad (retaining pins), fit a fairly strong spring to each of the four retaining pins, then refit. Result: No more squeaks!

With reference to Peter Jones' wiper article last month, an additional useful tip is to reverse the bushes which fit over the wiper arm shaft where it passes through the bulkhead. There are two of these bushes — one internally (under the dash) and the other on the outside. It is this external one that goes hard over the years and is often responsible for allowing water to drip onto the carpet adjacent to the clutch pedal.

What a strange thing coincidence is. I have had it in my mind for months now to make up a suitable lifting apparatus for removing the power unit from the Landcrab. Then, within days of each other, Ken Patience and Louis Buseti announced they were doing the same thing. Louis has already made his and sent a drawing; Ken is in the process of doing the same and will be submitting a plan for club use. In case you did not know, the overall weight of the 1800 power unit complete is 549 lbs/250 kg. This represents approximately a fifth of the overall weight of the Landcrab (2547 lbs/1155 kg).

Ty Reynolds is about to renew the clutch on his MkII and has succeeded in obtaining a substantial discount from Weston Brake and Clutch Service, Weston Creek. For \$207 you can obtain clutch plate, pressure plate, and release bearing (normally costing over \$300 from other outlets). The person to see is Bob McPherson and your club membership card is essential.

The All British Day this year will be held on 11 November at Weston Park, organised by the Jaguar Car Owners Club. Our club has participated keenly in this event over the past 2 years and this year will be no different. We hope to borrow a video camera to record this event and to film members' cars on the move around Canberra. Geoffrey Holmes bought the low-mileage MkI 1800 in Cooma (advertised recently) and this will be your opportunity to view an 1800 as near as possible to its original showroom condition. Believe me, it is immaculate.

The **NEXT MEETING** will be: **Monday, 5 November, 7.30 pm**  
**The Canberra Yacht Club.**

See you there! Remember ... You're travelling First Class.

## Mick

**WANTED:** Information to complete book on history of BMC. Need production details and chassis number prefixes for Australian and New Zealand produced (and sold) Farina and front wheel drive vehicles. Also any information on BMC commercial vehicles (production details, chassis prefixes, etc). Write to Peter Jones, 26 Leichhardt Street, Ruse NSW 2560.

**FOR SALE:** MkII Austin 1800, manual, two-tone blue, good tyres, good mechanical condition, needs tidying up. Just out of (Qld) rego. \$800. Telephone 282 5262 (AH).

\* \* \* \* \*

On behalf of the Council of ACT Motor Clubs, the Canberra Celica Club would like to invite the members of your club to the annual Breakfast Run:

Date: Sunday, 14 October 1990

Directions:

Commence: 8.00 am

West Block carpark, Rear of Old Parliament House

Leave for Molonglo Gorge approximately 8.15 am

Kings Avenue

onto Moreshead Drive

onto Pialligo Avenue

turn left onto Sutton Road

turn right onto Kowen Forest Road

proceed right across grid

Hope to see you all there!

Rodger Machonachis

telephone: 288 7224

Kowen Forest Road is a dirt road for approx 500m.

Go into Molonglo Gorge picnic area — Ranger Station.

Members of our club will be there with BBQs lit and running.



Reprinted from -  
The Courier-Mail (Brisbane)  
26 June 1990

## Govt's green scheme to hit motorists

CANBERRA.— Motorists may be slugged with hefty charges in a Federal Government bid to reduce emissions which damage the environment.

The Federal Government's discussion paper on sustainable development, released yesterday, also proposed bond or insurance schemes for industry to offset pollution damage.

The scheme, part of the Government's drive to apply sustainable development to eight industry

groups, canvasses pollution permits which can be traded between industries.

"A major problem with the current resource allocation mechanism is that many resources are free or underpriced," the paper says.

"Addressing the problems of natural resource pricing is crucial to the success of any strategy for sustainable development."

The paper, prepared by an inter-departmental committee, suggests

fuel taxes and vehicle-age charges could be imposed on motorists to discourage them from driving.

It acknowledges low income earners, who live in outlying suburbs and own older cars, will be hit hardest by the charges.

The paper will be finalised by a high-powered Cabinet sub-committee after six weeks of public comment.

The Primary Industries Minister, Mr Kenn, said the paper would end ad hoc decision-making.

Reprinted from -  
The Sun (Melbourne)  
26 June 1990

# Pollute tax plan to hit motorists

THE Federal Government will consider increased fuel taxes and vehicle registration fees in a bid to reduce pollution caused by cars and trucks.

Other options include putting limits on the age of vehicles which can be registered and forcing up the price of leaded petrol.

The options were in a discussion paper released by Cabinet yesterday.

The paper said asking the states to take such actions could help reduce the greenhouse effect as well as lower local air and noise pollution.

It said increasing fuel taxes and registration

By CRAIG JOHNSTONE

charges were possible ways of encouraging people to use public transport.

But it also warned the public should be told why such possible charges were needed and that they could be unfair to poorer people, who tended to use older cars and live in outer suburbs.

The paper also advocated a "polluter pays" principle for industry — a move which could see the Government levying taxes from industries which damage the environment.

The Environment Minister, Mrs Kelly, said the paper was the first step to



● Mrs Kelly ... the first step.

formulating a policy on sustainable development.

Other areas covered in the paper included agriculture, mining, energy production and tourism.

She said working groups of government, industry, union and conservation representatives would consider the ideas.

They would report to Cabinet before it decided on a sustainable development policy.

The Government is expected to decide its policy by the middle of next year.

Mrs Kelly and the Primary Industries Minister, Mr Kenn, yesterday stressed the options contained in the paper were merely for consideration and could be rejected.

They said there would be no bans on new industries while the Government was preparing its policy.

Mr Kenn said a sustainable development policy would enable both conservationists and industry groups to get away from "win-lose situations" on environmental issues.

# Council of ACT Motor Clubs Inc.

P.O. Box 963  
Dickson ACT 2602



The Hon R Kelly MP  
Minister for Arts Sport the Environment  
Tourism and Territories  
Parliament House  
CANBERRA ACT 2600

Dear Minister

I write to you on behalf of the Council of ACT Motor Clubs, a body representing over 40 ACT motoring clubs with more than 2000 members.

Within the past few days, my attention has been drawn to the attached newspaper reports concerning proposals in a Government discussion paper to impose increased costs on older motor vehicles. This is apparently being canvassed as a measure to reduce vehicle emissions of carbon dioxide (CO2).

I note that the media reports were dated in late June and suggested that a six week comment period would apply. I regret that this letter will be late, and that I am required to comment on only the media reports. I find myself wondering if any real attempt was made to communicate the proposals to those clubs and organisations representing the motorists who would be most affected by these proposals, i.e. this Council and other similar bodies. Maybe your officers could advise on this point.

Without wishing to dwell on the newspaper reports, which appear somewhat garbled, may I make the following points:

1. While not doubting the reality of the "greenhouse effect", no useful purpose would be served by Australia moving ahead of coordinated international action, particularly by the major industrial nations, in the area of CO2 control. Were we to do so, the global significance would be negligible.
2. There are far more substantial emitters of CO2 in Australia than motor vehicles, particularly coal burning industries and power stations.
3. In the area of private road transport (and ignoring the major use of fuel and resulting CO2 emissions by the commercial sector), most of the total fleet kilometres are travelled by new and near new vehicles. Australian Bureau of Statistics data on motor vehicle usage clearly show not only that older cars decrease as a proportion of the overall fleet, but also that the average per-vehicle distance travelled yearly also decreases substantially with increasing age.
4. There is little basis for assertions that older vehicles have higher fuel consumption - that depends on individual vehicle characteristics, rather than age. As an example, 30-40 MPG was common among post-war cars. Equally, in this context, it is relevant whether vehicles use leaded or unleaded petrol.

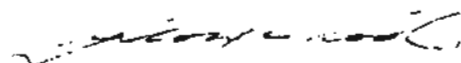
5. Given the above points, sanctions against the ownership and use of older vehicles not only would be inequitable to owners of older vehicles but, more importantly, would lead to an inconsequential decrease in CO2 emissions at great community expense.

This Council rejects any suggestion that older vehicles should be subject to limitations, financial penalties, or other constraints beyond those applying to the overall private vehicle fleet. While not mentioned in the newspaper, we also would reject any "Japanese" style mandatory scrappings of vehicles only a few years old, should that be proposed.

While we appreciate that the "greenhouse effect" must be addressed, we are concerned that the measures set in train with that intent should not be used to promote either extreme environmental views or the interests of industry groups, e.g. the vehicle manufacturers. It is our concern that these proposals appear to contain influences from both these directions and to be intended mainly as visible action against a minority sector of the community.

I would appreciate your comment on the above points. Most of all, the Council would welcome an assurance that not only will no discriminatory measures be taken against older vehicles, but that relevant groups such as this will be kept informed and be given full opportunities to comment at an early stage on any proposals which may affect us.

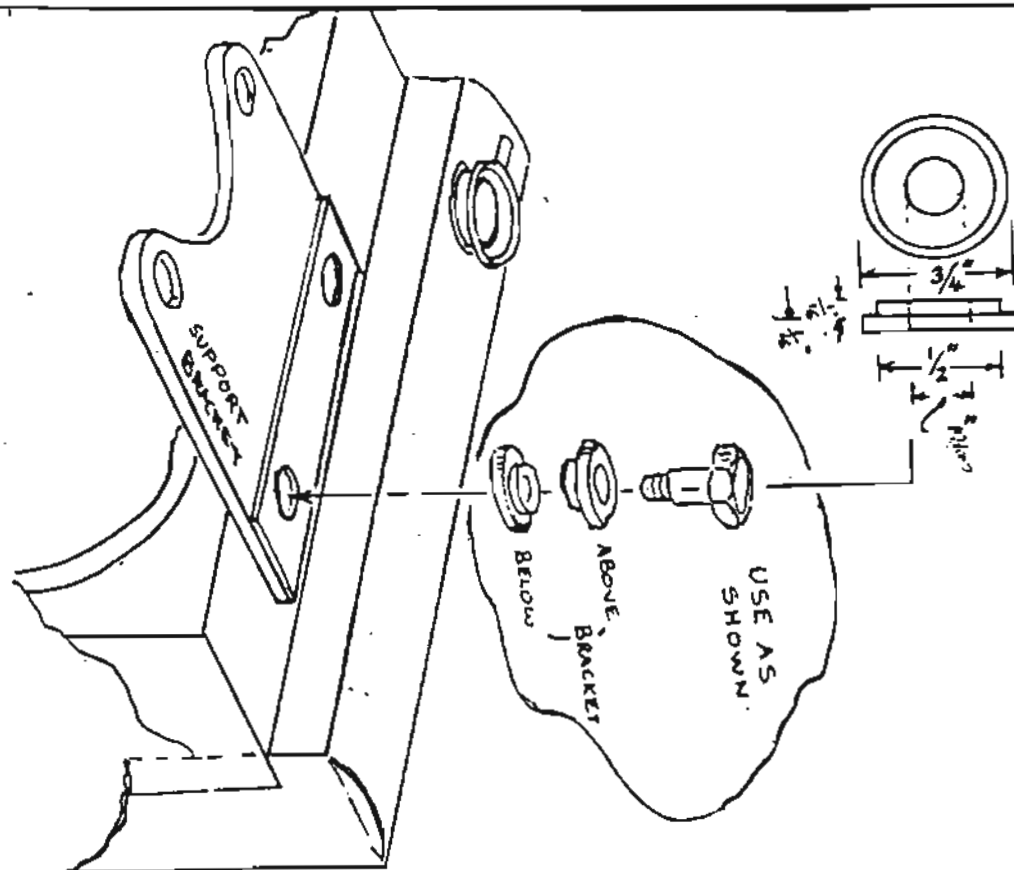
Yours sincerely,

  
George Cook  
(President)

6 September 1990

# AUSTIN 1800 RADIATOR MOUNT VIBRATION BUSHES

MATERIAL: POLYURETHANE.



## "AUSTIN 1800-DUAL HORNS" Relocation Modification.

Reason: 1 EASE OF ACCESS FOR SERVICING.

2. " " " " ENGINE REMOVAL.

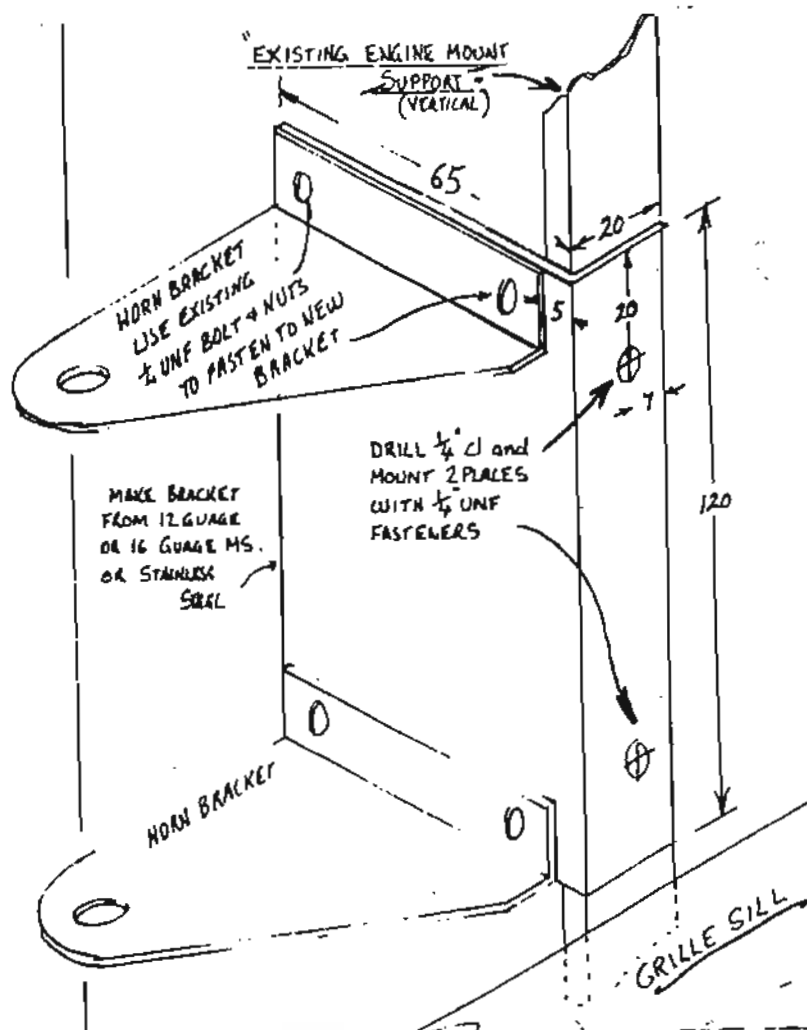
3. " " " " ELECTRICAL WIRING.

4. " " " " OF FASTENERS.

Note: ORIGINAL POSITION REQUIRES TWO PERSONS TO HOLD SPANNERS AND ACCESS IS EXTREMELY DIFFICULT.

SIMPLY FABRICATE NEW BRACKET FROM 12 OR 16 GAUGE MILD OR STAINLESS STEEL OR SIMILAR.

BOLT ON HORN BRACKETS AS SHOWN AND MOUNT NEW BRACKET ON EXISTING VERTICAL ENGINE MOUNT SUPPORT.



K. HARRIS

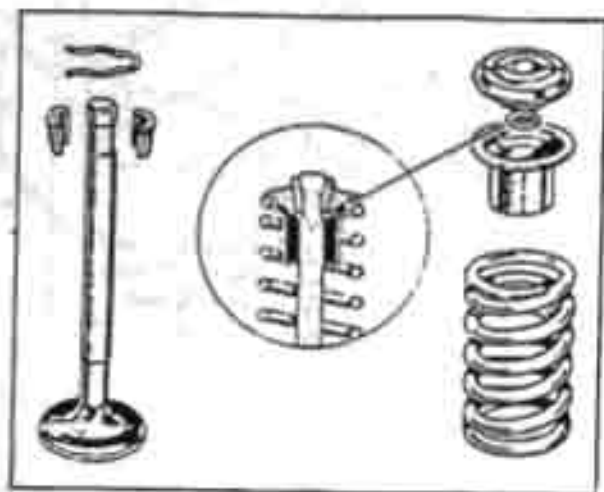
P.T.O.

At about 1800 RPM the bracket holds the top of the radiator to the engine. Careful on the bolt heads (spinning side). See Fig I.

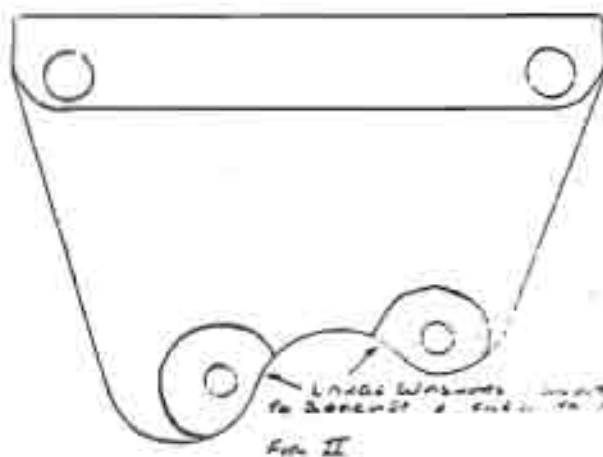
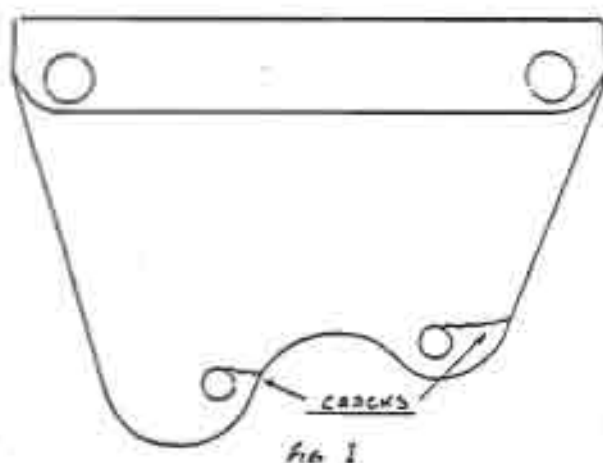
After having to get mine re-welded, a small mod was made to strengthen up the bracket. See Fig II.

One of the causes of cracking is due to the rubber brackets on the radiator side of the bracket being too hard or completely missing. New brackets can be obtained from electrical hobby shops, like Dick Smiths or TAFE. They come in bars of about 1/2" or 1" for a couple of dollars.

P.A.S. 16.8.90



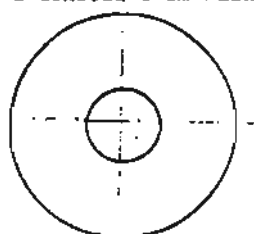
If you forget this little washer, or if it is hardened and cracked, you will have high oil consumption on OHV engines.





SUGGESTION FOR THE REFURBISHMENT OF BALL JOINTS. \*

1. Remove the staking at four places around the edge of Housing (2) and dismantle the ball joint.
2. Thoroughly clean all parts and examine ~~them~~ for suitability for re-use.
3. Remove sufficient material from the edges of either, or both Top Socket (3) and Bottom Socket (2), so that when both are held firmly against the ball there is a gap of about 0.5mm between them.
4. Thoroughly lubricate all parts with Molybond, or similar grease and re-assemble.
5. Place a conical shim washer in the recess of the suspension arm :-



O.D 1.18"  
I.D 0.315"  
thickness 0.01 - 0.15"  
Material M.S.

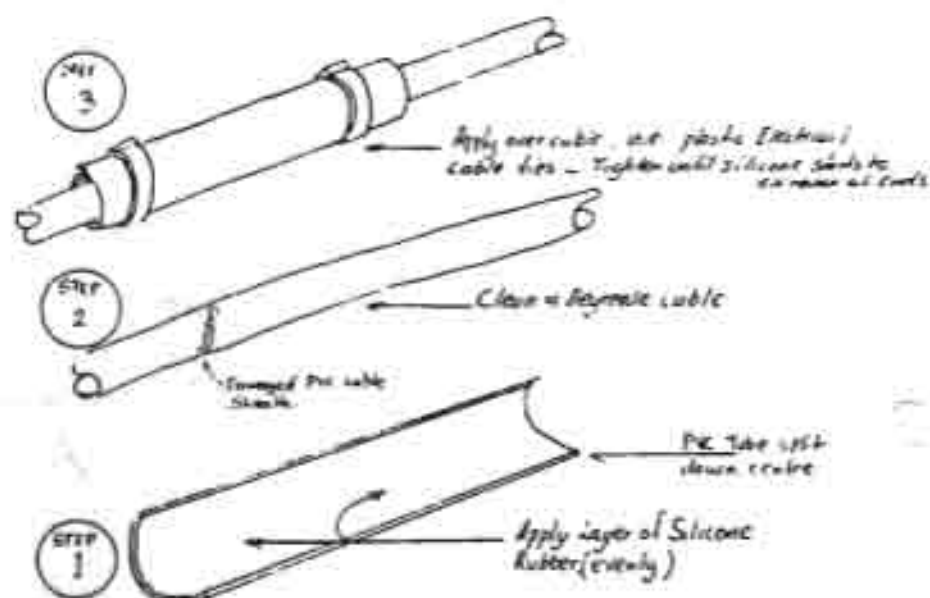
6. OMITTING Shims (5) and Lock-washer (6), re-assemble the complete ball joint into the suspension arm.
7. Screw the housing in until the Ball Pin (7) has the specified freedom of movement.
8. Using feeler gauges determine the gap between the face of the suspension arm and the flange of the housing. Call this dimension, "D".
9. Measure the thickness of the lock-washer, and to this add sufficient shims to bring their total thickness to equal "D".
10. With the lock-washer and shim assembly as determined in (9) above fitted to the housing, re-assemble all to the suspension arm.
11. Tighten to specifications and secure the lock-washer.
12. Fill the Dust Cover (4) with grease and fit to the ball joint.

\*  
AUSTIN 1800 UPPER/LOWER  
SUSPENSION BALL JOINTS.

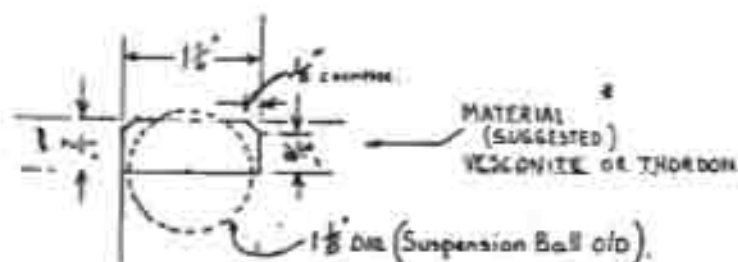
SHEET 1 of 2

K. Patience

# QUICK-FIX REPAIR



## Machining Detail



## BUSH-BEARING FOR AUSTIN 1800 SUSPENSION BALL JOINT (BOTTOM BUSH)

VESCONITE:  
 VESCO PLASTICS  
 3 SUMMIT AVE  
 CHICAGO, ILL

THORDON:  
 TAYLOR ENGINEERING  
 136 BELL ST., PEABODY, MA

Sheet 2 of 2

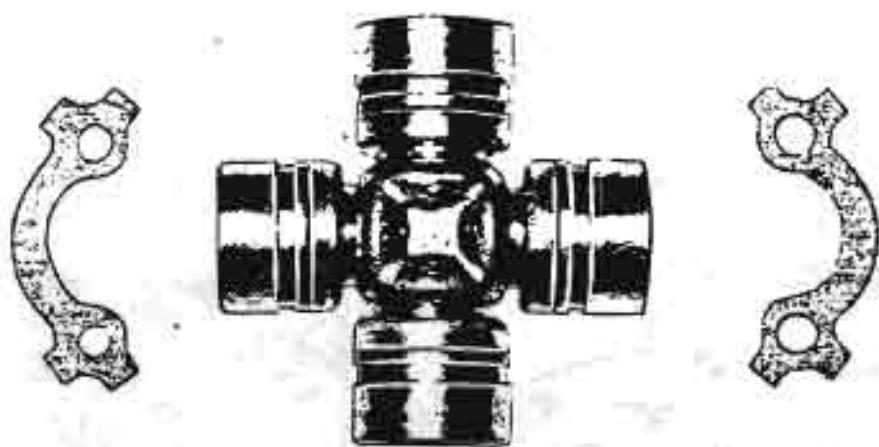
# LEYLAND UNIVERSAL JOINTS

If you own a Morris 1300, 1500, Austin 1800, a Kimberley or a Tasman, then this story is for you... the rubber type universal joint fitted to the Minis and the 1100s was covered in the January issue of AUTOFIX.

## EAST-WEST UNIVERSAL JOINT

If small problems are encountered during the renewal of the universal joint on one side of the car, then it is possible for the overhaul operation to take around five hours — at the average cost of \$15 an hour for working on a fine British vehicle, a labor saving of \$90 is attractive. As there are two universals fitted to the vehicle, if both are to be renewed the money saved by doing the repairs yourself will be worth the blisters and the bruises that you may have at the completion of this job.

It was first suspected that there was a faulty universal joint in the Morris we have used here when a squeak was heard under light throttle conditions. Under deceleration or hard throttle, no squeak. As it was not known, at this stage, which side the offending joint was located, we decided to drive for a few more kilometers until wear could be felt within the joint. Each weekend the sump guard was removed from beneath the engine and the universals pushed/felt/levered/and tugged in an attempt to locate the wearing joint. It was not until the car started to shudder under acceleration through first and second gears with the accelerator fully depressed in racing type fashion, that wear was found to be present in the passengers' side universal joint. It was decided that as no wear could be felt in the driver's side joint, and the time needed to renew it would be around four hours (the car being jacked up and the sump guard removed) the driver's side joint could be left to another time. In theory two joints fitted at the same time will wear out together, but three months and 4000 km later, the driver's side joint is not even squeaking. The decision not to renew both joints together, in this instance, paid off.



But if you have the time, renew both together as it could be inconvenient to renew the second one when it wears out.

## DISMANTLING

In order to remove the drive shaft from the vehicle it is necessary to detach the hub assembly from the upper and the lower control arms. The upper arm is first detached by positioning the stand beneath the lower control arm, removing the top arm rebound nut and then levering the top control arm upwards by inserting about a two metre steel bar under the end of the upper control arm and beneath a convenient solid fixed point on the chassis. Now pull the control arm upwards, but don't pull the car off the stand. Strike the end of the arm with a heavy hammer to break the tapered joint. Now move the stand to beneath the chassis.

The lower joint is detached in a similar manner after levering the lower control arm downwards in the same manner that the upper arm was levered upwards. When levering do not lever against brake hoses or lines.

## ASSEMBLING

During the assembly of the new universal joint, cleanliness is essential to ensure long life of the new joint. As shown in pic 15, the raised section of the joint must face away from the differential.

The secret in the fitting of the new joints is to press the joint further than its correctly installed position so the second cap can be fitted over the trunnion WITHOUT dislodging the needle rollers in the cap which is about to be fitted.

Before fitting the assembly into the vehicle ensure that the flange is square — if not use a flat file to true-up the surfaces.

## WHAT YOU'LL NEED

Materials: A new universal joint — and make sure that it is the correct one before removing the shaft from the car. Tools: A set of AF hand spanners or sockets, hammer, long steel bar, stands, and an engineer's vice.



1. Loosen the wheel nuts on one side, raise that side and run over the wheel. Place a stand beneath the lower arm and repeat the procedure on the other side of the vehicle.



2. Apply the handbrake, select top gear and then remove the bolts which retain the sump guard to the vehicle — always remove the rear retaining bolts first while an assistant supports the guard.



3. Have the assistant apply the footbrake, remove one retaining nut and bolt, then select neutral, release footbrake, rotate drive shaft. Repeat the procedure until all nuts are removed.



4. Remove the rebound nut and break the taper on the top ball joint by levering the upper control arm upwards as described under DISMANTLING on the lead-in page of story.



5. Turn the wheel out and loosen the nut which retains the steering arm to the tie rod joint. Strike the end of the arm to break the taper, remove the nut and then disconnect the rod-end.



6. Support the car and reposition the stand so that it is now beneath the front radius rod bracket. Disconnect the lower ball joint as also described on the first page of this article.



7. On models fitted with disc brakes, caliper and remove the two retaining bolts which hold the caliper to the hub assembly. Withdraw and suspend the caliper assembly without straining.



8. Using the steel bar, lift the upper control arm from the joint and pull the hub outwards slightly. Now lift the hub bottom joint from the lower control arm and withdraw the shaft assembly.



9. Wash the driveshaft universal joint and then place the assembly on the work bench. Using a thin screwdriver as a punch locate and remove the four snap rings as shown.





10. Support the assembly so that the yoke rests on the vice jaws and using a soft-faced hammer drive the flange squarely downwards, sufficiently to grip the exposed trunion cap.



11. Grip the exposed cap with a pair of multitips or pliers, twist the cap back and forth to remove it from the end of the trunion. If it is tight, grip the cap in the vice jaws and twist shaft.



12. Invert the shaft and drive the flange downwards again. Gently tap the flange upwards and then lift the flange from the joint. Support the flange and tap out the second cap.



13. Again support the yoke across the vice jaws and using the soft-faced hammer drive the trunion downwards to expose the bottom cap — as shown it will be essential to pivot trunion.



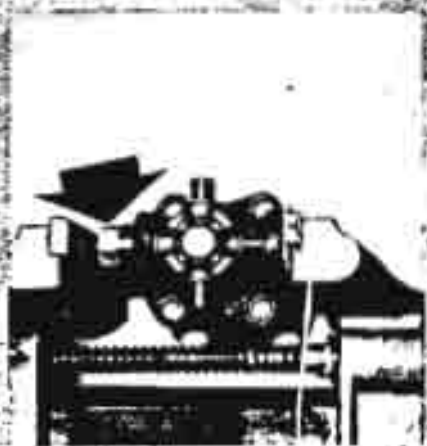
14. Remove the trunion cap and then invert the yoke. Again drive the trunion downwards and then lift it to pivot it from the yoke. Remove the remaining trunion cap.



15. Thoroughly wash and dry the yoke and the flange. Your hands must also be clean. Separate the caps from the NEW trunion and place the trunion into the flange.



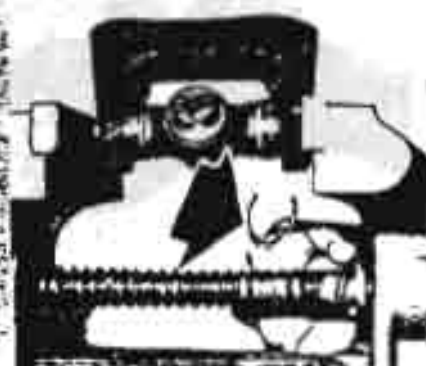
16. The raised trunion section must face away from the diff. Hold the trunion into one flange cap orifice and then place the cap over the trunion and without dislodging any rollers.



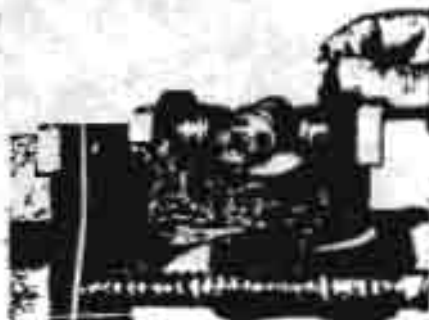
17. By prying on the OUTER SECTION ONLY of the cap, press the cap into the flange using a socket or a nut, as shown. To press trunion through opposite side use large nut.



18. Place the second cap onto the trunion exposed and without dislodging any rollers and press the trunion back into the centre of the flange using the sockets or the nuts.



19. Carefully instal a new snap ring to one of the installed caps which has an exposed snap ring groove. Ensure that it seats fully in the groove of the cap without distortion.



20. Check the fit of the second snap ring before attempting to instal it. If necessary support the flange so that it can be spread slightly by using a thin, soft drift.



21. After installing both snap rings ensure that the joint can be easily twisted — if not, support the flange in the vice and spread the eyes of the flange slightly using a punch.



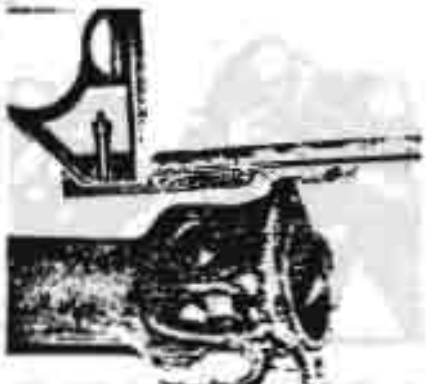
22. Manoeuvre the flange onto the yoke, hold the trunnion against the yoke eye and instal the third cap without dislodging the needle rollers. Press the cap through the yoke eye.



23. Instal the remaining cap without dislodging its needle rollers and press the cap into the yoke eye. If possible, instal a snap ring to one of the cap grooves — use new snap rings always.



24. If the remaining snap ring cannot be installed, spread the yoke eyes as shown — this is how the flange eyes are also spread if necessary — using a soft drift and a hammer.



25. If the flange cannot be twisted easily in both directions use the punch to spread the eyes slightly. Check that the flange to diff mating surface has not been damaged, true up with a file.

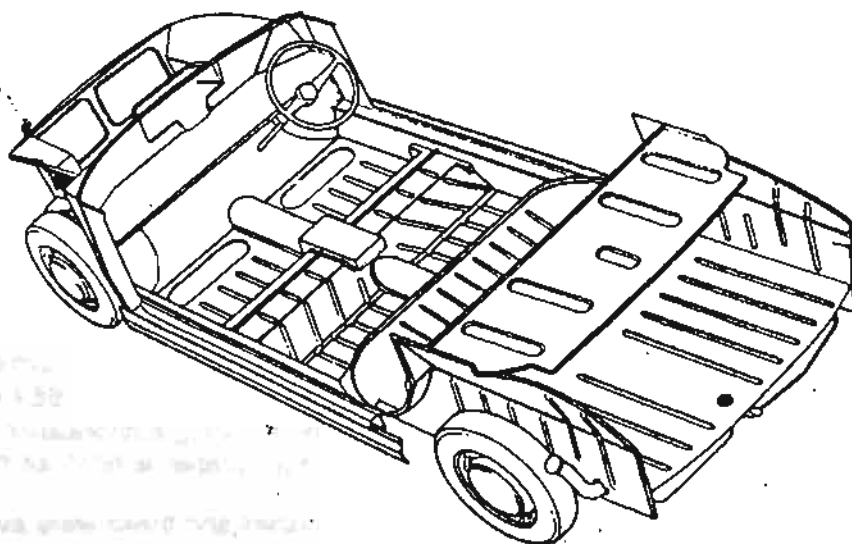


26. Before installing the assembly into the vehicle ensure that the boots (arrows) on the drive shaft are still serviceable. If not, then renew them while the drive shaft is removed.



27. The installation of the shaft assembly into the vehicle is a reversal of the removal procedure. Tighten the flange nuts while holding a short bar against the flange.

# LANDCRAB



Number 30

Landcrab Owners Club of Australasia

November 1990

Attendance at our monthly meetings was never very good, but to see only two turn up at the last meeting was a little disheartening. Perhaps the day is not far off when I shall be the only one there ... however, to look on the brighter side, we do have three new members. Please welcome:

Paul ANTHES	20 Scantelbury Crescent	(06) 295 5920	Mkl Utility
	Theodore ACT 2905		
Max FREW	'Klola'		Mkl Utility
	Boorowa NSW 2586		(customised)
Richard GEARY	3 Amadio Place	(06) 258 7718	Mkl Sedan (manual)
	Melba ACT 2615		

The date for the All British Day shown in last month's newsletter as 11 November was wrong — it should have been 4 November. The Jaguar Car Club, the organisers of the event, gave me the date when I called a couple of months back. However, quite by chance when speaking to Don Brown of the MG Car Club, I was told the date was wrong and that it was definitely 4 November. Another phone call to the Rover Car Club confirmed that 4 November was indeed the day. I think I managed to call all the Canberra/Queanbeyan members advising the alternate date and my apologies to those I could not contact.

As you can see we have two new utility members. Paul Anthes' Mkl ute is a little neglected mechanically but it does have a new red paint job. Paul has done wonders in the short period he has owned it and, with time, he says it will be on top form. Conversely, Max Frew's utility has been totally customised and is in superb condition. Max has already won two trophies in a display recently held by the Griffith Custom and Classic Car Club — 'top interior' and runner up for 'best ute'. Max is in the process of moving up to Queensland.

Rick Geary advises that a universal wiper blade assembly is available which suits the Mkl admirably. The name of the product is 'Tridon' (Canadian-made) and comes complete with adapters and pins though Rick says these are unnecessary with regard to the 1800. The cost is \$8 each and could well solve the recent problems experienced by Nell Melville in WA.

We have at last received the parts and T-shirts from our Landcrab counterpart in the UK. They arrived courtesy of Ian Ingram, their editor, who just happens to be a purser with British Airways.

Speaking of the UK club, it has drawn some negative criticism from its Aussie members — notably Peter Jones, Ken Lyle, and others in Victoria — who have not heard from them in months and have not received any newsletters since May. This probably explains the reason why our club has not had



a newsletter for so long. This situation should (hopefully) improve now that they have at last elected a committee thereby spreading the enormous workload that Bill Fraser had. The UK Landcrab Club now sports 247 members and the mind boggles when I think of the mere 57 members we have. An interesting aspect of their club is that they encompass the Austin Maxi, presumably classing it a Landcrab. I'm not too sure I agree with that as the Maxi is a totally different car in every way — hardly a Landcrab to my way of thinking.

With regard to the Austins Over Australia event to be held at Tamworth next Easter, so far no enquiries have been received but it is still not too late. The Austin Motor Vehicle Club of Queensland sent us some application forms and these are available upon request.

As usual, our technical information is not lacking for this month's newsletter. Included is an article on how to carry out a top overhaul on the 'B' series engine (sent in by Peter Jones) and a copy of a brochure of transfers/stickers/labels available from a company in Victoria. Alternately, you can write to Classic Reproductions, 991 Wolverhampton Road, Oldbury, West Midlands, B69 4RJ, United Kingdom or, as Pat Farrell and I have done, FAX them with an order including authorisation to charge your credit card — our orders were received within nine days. The fax number is 0015 44 021 544 4340.

Ken Patience has sent in samples of the polyurethane bushes and these were available for inspection at the last meeting. Included were rocker cover seals, radiator anti-vibration bushes (replacing the old grommet style), and two types of lower fulcrum bush — one type, found on the Mkl, replaces the Hardiplex bushes and the other type replaces the MklII Silentbloc type. The latter is smaller in diameter, due to the sleeve remaining after the old bush is removed. The club has placed an order with Dale McShane in Victoria who manufactures the bushes from Ken's dies. The order consisted of 40 rocker cover seals, 10 each of the lower fulcrum bushes, and 40 radiator bushes. Prices are expected to range from 70¢ to \$1.50 and will be advised next month.

Yet again Ken has sent in more suggestions. Among them is a quick-fix repair for the steering column plastic shroud and another wiring detail for Austin 1800 5-pole trailer connections. As mentioned last month, he sent in a beautiful drawing of his home-designed floor hoist for 1800 engine removal. However, Ken stresses that the final dimensions for lifting the power unit safely were achieved by trial-and-error. For example, the boom length to bottom rail length is critical and, if too short, the assembly will tend to tip backwards; also, jack position is critical. The materials used were those available to Ken at the time and any strong steel sections would suffice, providing the welding is carried out by a competent operator.

Reference the rubber universal joints mentioned in last month's newsletter, Ken reports that he has successfully used another 'conventional style' with white nylon caps, utilizing needle roller bearings. This type also has a safety piece moulded on the extremity to prevent misplacement of the U-bolts. This type is made in the UK by Quinton Hazell and the part number is QH5000 KIT. It is available in Victoria and is relatively expensive.

Another addition included with this newsletter is an oil filter modification replacing the relatively expensive Ryco Z23 with a Z9 (as fitted to Ford, Toyota, etc). Ken cut open both filters and examined each in detail — pressure valve details, etc — and found both to be identical. Only the threads are different. He converted both his and his wife's Landcrab to the Z9 without any detrimental effect. A drawing which shows machining details is included. There are many engineering shops around who could make up an adapter thread. I shall be making enquiries in the Canberra region and it may be possible to get a number made up for our general use. One thing is for sure, Z9 filters at less than half the Z23 price, an adapter thread will pay for itself in no time.

Not that we need to be reminded just how good the Landcrab is, here is yet another example to its testimony. Mick Oates and his family (including 3 teenagers) recently returned from a holiday in Queensland. His family and their luggage completed a 3000-mile journey, the Mkl returning an average of 30 miles per gallon and oil consumption confined to a quart. The trip was trouble-free mechanically except when the CB points closed up when the screw became loose. Mick bought his Mkl a couple of years ago very cheaply when the car was in need of a new clutch. Since then he has put in many hours — but little cash — to bring his car up to standard and it owes him nothing.



For those of you in Canberra, a grille/bumper badge is available courtesy of the ACT Council of Car Clubs, of which we are a member. The badge is about 3 inches in diameter and features a blue parliamentary flagpole on a yellow background. The cost is \$16, available from Graham Brohan, 71 Soloman Crescent, Latham ACT 2615.

The **NEXT MEETING** will be: **Monday, 3 December, 7.30 pm**  
**The Canberra Yacht Club.**

See you there! Remember ... You're travelling First Class.

**Mick**

#### **COMMITTEE UK LANDCRAB CLUB**

General Secretary	William Fraser	4 Trelawney Ave, Rumney Cardiff	(222) 770015
Spares Secretary	Tony Wood	31 All Hallows Road, Bispham, Blackpool	(253) 52730
Treasurer	Richard Horwood	27 Curtis Road, Whitton, Middlesex	(81) 898 2968
Technical Secretary	Steve Lee	66 Woodlow, Thundersley, Benfleet, Essex	(268) 741530
Historian	Steve Crocker	5 Tangmere Close, Shotgate, Essex	
Events Secretary	Trevor Woodford	52 St Vincents Crescent, Horndean, Hants	(705) 592962
Newsletter	Ian Ingram	51 Granville Road, Hillingdon, Middlesex	
Publicity	Mark Chivers	21 Christleton, Mill brook, Shevington, Lancashire	(257) 427593

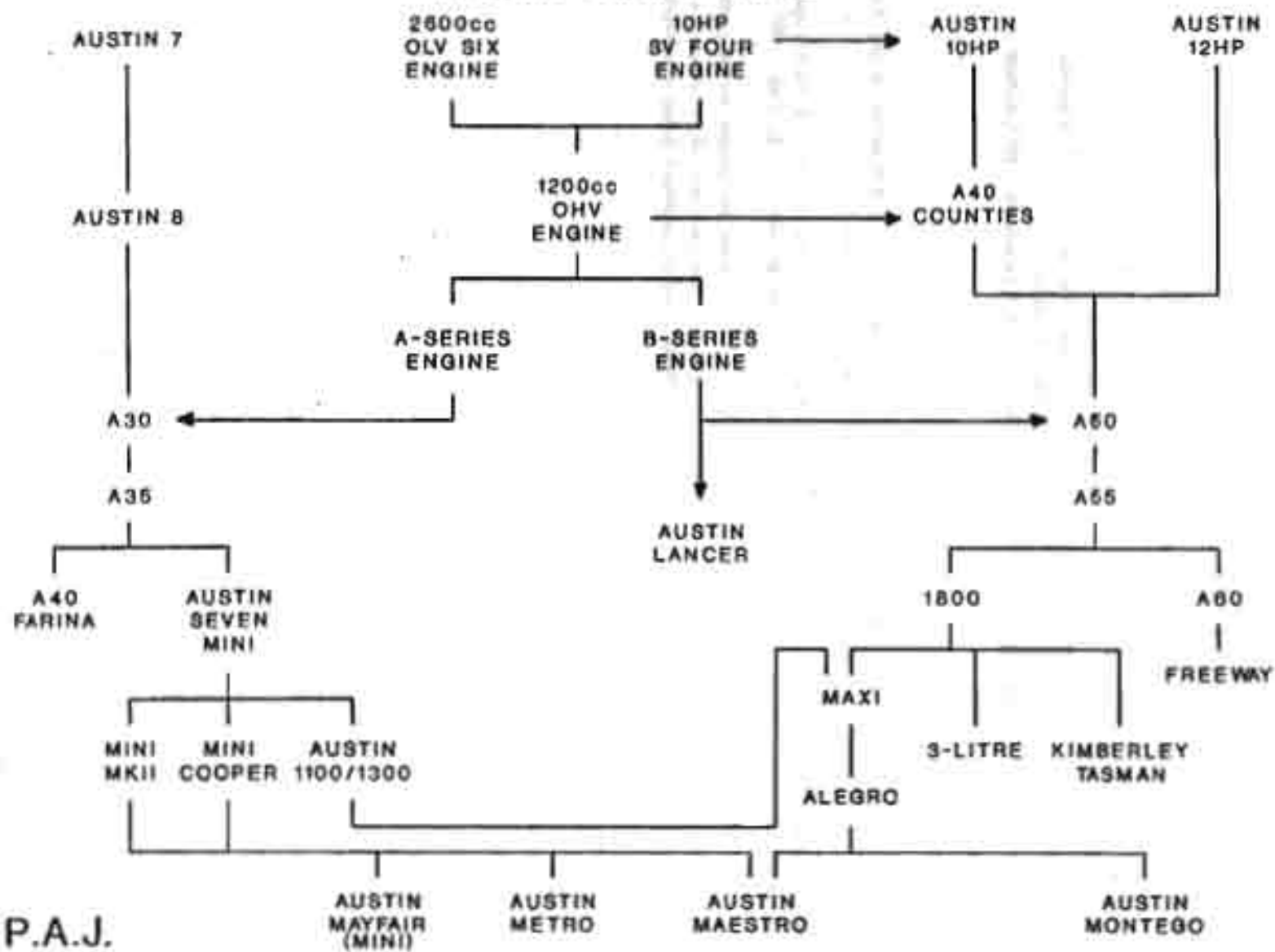
#### **FOR SALE**

Ken Patience currently dismantling a Mkl 1800 for spares. Has very straight body with good door panels, no rust. Too good to send to the tip. Very reasonable prices. 13" wheel trims, etc, etc. Telephone (03) 336 4681.

Miscellaneous: New front side/indicator lenses to suit Mkl, \$7 each, 4 available. New wiper switch, \$10. New lefthand rear indicator lenses to suit Mkl, \$7 each, 4 available. New righthand tail-light lens, Mkl, \$5. Mick (06) 282 5262.

**WANTED:** Information to complete book on history of BMC. Need production details and chassis number prefixes for Australian and New Zealand produced (and sold) Farina and frontwheel drive vehicles. Also any information on BMC commercial vehicles (production details, chassis prefixes, etc). Write to Peter Jones, 26 Leichhardt Street, Ruse NSW 2560.

# AUSTIN FAMILY TREE



P.A.J.



At first sight it looks impossible, but using the manifold off and over the rear studs allows the front end to clear the breather valve of separator canister.



Some head studs pass through the rocker shaft, so all head nuts must be progressively slackened at this stage. And note the keyed washer on the rear end pedestal.



A sharp twist and upward pull on the pushrod should overcome any tendency for it to drag to displace the cam follower. Hold pushed in carefully keep the rods in order.



Moving on to the head now, you may prefer to remove the worst of the carbon from the chambers and valve heads before using a spring compressor to remove the valves.



With the valves out and placed carefully on one side in order, don't neglect to clear the coke from the ports. A long thin brush in a drill is handy for this.



Clean up each valve in turn and use straight-edge to check that the stem is true. Also look for heavy stem wear or for dangerously thin or warped head face.



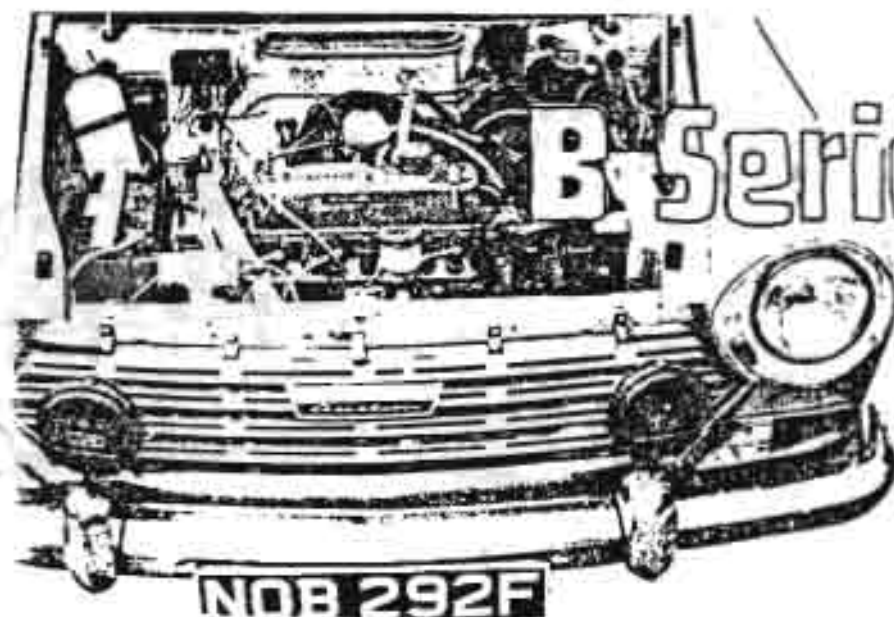
It's sound practice to renew all valve springs as part of the job. However, 1600 springs should measure 2 1/2 in. and 1 1/2 in. long, outer and inner, respectively.



Certainly you should renew the valve stem oil seals as a matter of course; ensure that they are correctly positioned, just below the cotter. Soak them in oil first.



The new composition head gasket was fitted "dry"—gasket seal is only a "last resort" on aging units with uneven faces. The gasket was marked "top" and "front".



## BMC Series 292F decoke

How to carry out a  
overhaul  
BMC's popular medium-  
capacity engine



When the head is lifted close inspection of the gasket, block and head faces will show whether there has been any gas or water leakage—they will show as stains



A blunt, curved table knife proved best for decoking the dishes: piston crowns. An old piston ring laid on top of the piston ensures a useful carbon "seal" is retained



Once the piston crowns and the block face have been thoroughly cleaned, check the pistons for excessive "rock" and the tops of the bores for unduly hefty wear ridges



Next, draw rag through each valve guide to clean them out, and then insert each valve in turn and check to see there's no more than just perceptible sideways play



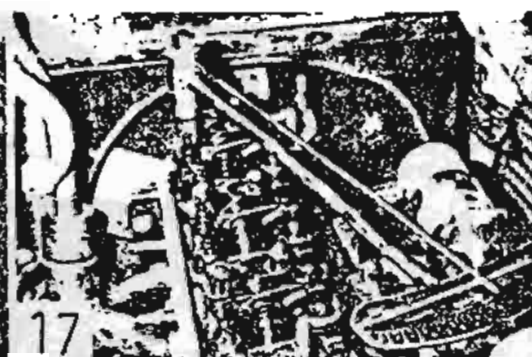
Rotate the suction tool back and forth between the palms, occasionally lifting and turning the valve through 90° to distribute the paste evenly around the seat



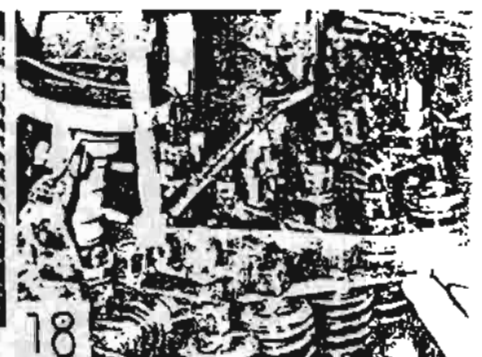
Using just fine paste if possible, continue the grinding only long enough to achieve an unbroken matt grey ring round both seating surfaces. Remove all pas.



For assembly, the chambers and bores were fairly generously smeared with oil—the theory is that the first explosion will clear stray coke along with the oil



The "B" Series head nut torque is 40 lb.ft—but remember that as well as following the correct sequence each nut should be tightened progressively, little by little



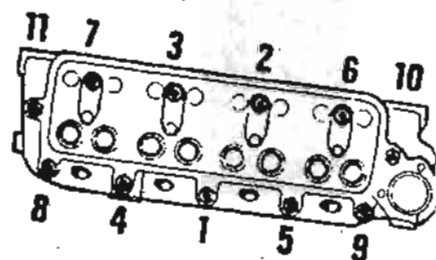
The Mk.1 1800 manual specifies the valve clearance—adjusted with the engine running, and cold! Other "B" Series engines may differ, so check with your handbook

**N**INE times out of ten, a decoke is the first major job that the d-i-y man attempts—and he finds that it isn't so "major" after all. Once you know one end of a spanner from the other, the nut and bolt work is perfectly straightforward and the object of the exercise is simple enough.

However, it is the "do's and don'ts" of the actual work involved once you've got everything apart that may still puzzle some. Since it is this that can make or break the operation it does deserve special care. Remember, too, that attention to the valves and their seats is, in fact, more important than removing what little carbon you may find.

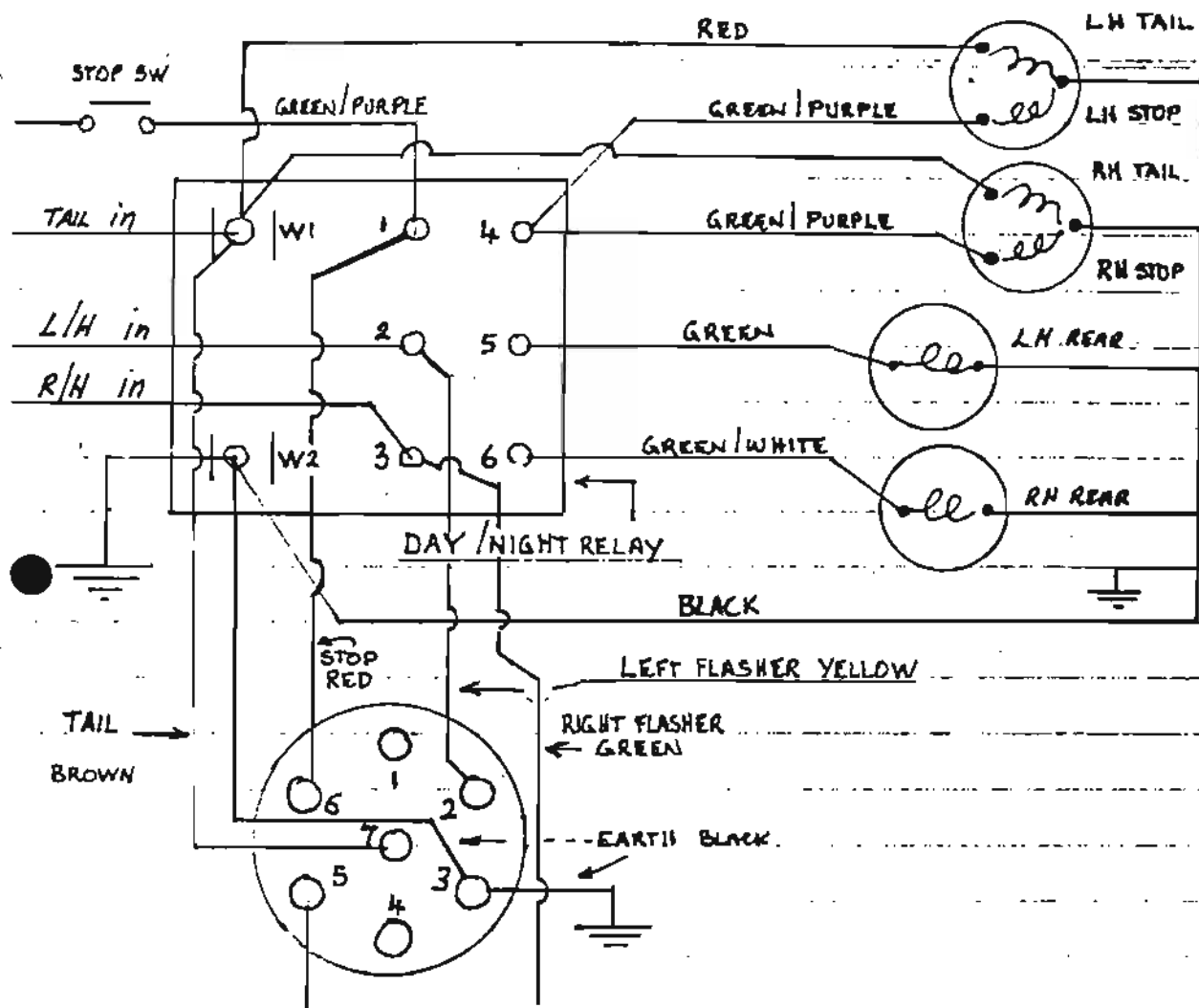
The object of this feature, then, is more to illustrate the checks that should be made and the techniques involved than to detail the removal of every single nut and bolt.

Our top-job was carried out on a BMC "B" Series engine, the car in this case being the Austin 1800.



HEAD NUT TIGHTENING SEQUENCE





LOOM DETAIL

5 CORE TRAILER CABLE (about 1 metre long.)

UTILUX FEMALE/MALE SPADE 'QC' SERIES CRIMP CONNECTOR  
5 PLACES

## CORRECT WIRING DETAIL FOR AUSTIN 1800 TRAILER CONNECTOR (5 POLE)

By using the Utilux (or equivalent) FEMALE/MALE SPADE TERMINALS the wiring can be done on DAY/NITE RELAY "DIRECT TO RELEVANT PINS" by removing original & placing female/male terminal in place & replacing original connector.

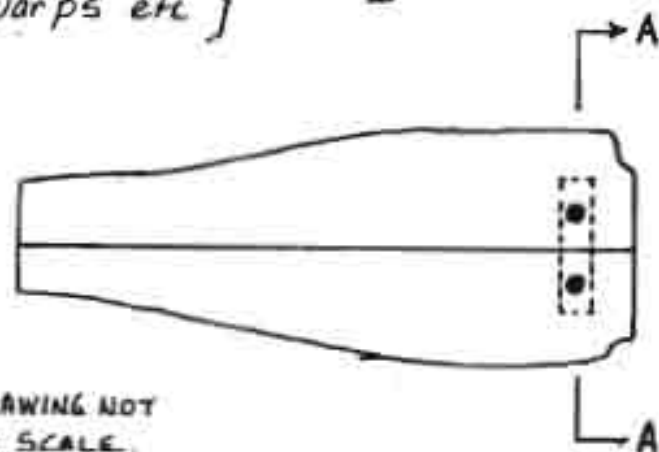
This prevents BURN OUT OF RESISTORS INSIDE Day/Night Relay.

Note. IF RESISTORS ARE BURNT-OUT PLACE A 0.75 OHM RESISTOR 10W, WIRE WOUND, IRC BRAND ACROSS PIN 1 AND 4 OR WHICHEVER RESISTOR BURNT OUT. (RESISTORS AVAILABLE AT DICK-SMITHS).

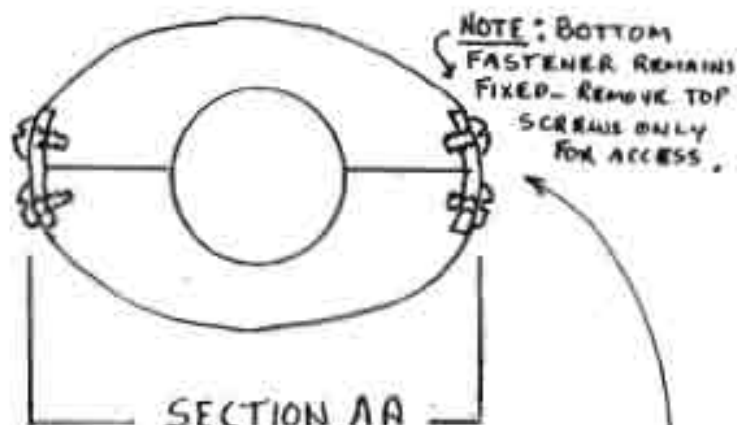
# QUICK FIX REPAIR — AUSTIN 1800

## STEERING COLUMN PLASTIC SHROUD

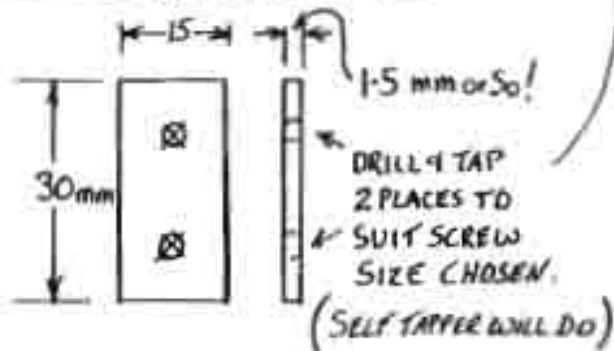
{ For when shroud locating pins break and shroud warps etc }



DRAWING NOT TO SCALE.



MATERIAL  
MILD STEEL  
OR BRASS etc



## THE 1969 LONDON-SYDNEY MARATHON

The most popular and successful car entered in this event was the Austin 1800 which had 12 cars entered, of which 9 completed the course. This is very good considering that only 56 out of the 106 cars entered finished.

There were 3 cars entered by British Leyland UK and 1 by BMC Australia; all of these cars completed the course with P. Hopkirk (entered by British Leyland) coming second with a loss of 56 points to A. Cowan in a Hillman Hunter who lost 50 points. Hopkirk's car would have been first to complete the course but, in true sportsman manner, he stopped to let the Hunter cross the finishing line first.

The next 1800 home came sixth; this was also a BL entered car with a loss of 70 points. Listed below are the placings/points lost for all the 1800s which completed the course:

2nd	P. Hopkirk	BL UK	56 points
6th	R. Aaltonen	BL UK	70 points
19th	Fit Lt Kingsley	Kingsley/Evan Cook Ltd	266 points
21st	E. Green	BMC Australia	332 points
24th	T. Fall	BL UK	430 points
28th	B. Field	Ventura Evenear Ltd	570 points
31st	Capt Hamilton	Royal Navy	656 points
34th	A. Wilson	Wilson's Motor Caravans	816 points
36th	R. Eaves	Big 'N' Cash-Carry Group	873 points

The first 1800 retirement was in Yugoslavia when G. Franklin put a conrod through the crankcase; next was G. White who rolled over near Tehran; and finally B. Williams who went missing after Tehran.

All the 1800s, with the exception of E. Green's, were UK entered.

P.A.J.  
July 1988

# TRANSFERS

PART NO	PRICE	DESCRIPTION	APPLICATION
TR201	\$3.50	Tecalemit Oil Filter Transfer	MGB/C 1967-70
TR202A	\$3.50	Cooper Air Cleaner Yellow(Front)	Midget,Sprite,Minor 61-68
TR202B	\$3.50	Cooper Air Cleaner Yellow(Rear)	Midget,Sprite,Minor 61-68
TR203	\$3.00	Smiths Heater Motor Transfer	2A/2B,Magnette,MGB/C, Jaguar,Rootes
TR204	\$3.50	Rosettes Transfer	BMC Vehicles up to 1968, Windscreen Only
TR205	\$3.50	Safety Fast Transfer	All Special Tuning Vehicles Body Mounting up to 1969
TR206	\$3.50	Safety Fast Transfer	Windscreen
TR207	\$3.50	Special Tuning (Body Mounting)	All Special Tuning Vehicles up to 1969-70
TR208	\$3.50	Rosette Transfer	All BMC Cars Body Mounting
TR209	\$3.50	Oil Filter Cap Transfer (Red)	Triumph/Herald/Land Rover
TR210	\$3.50	Oil Filter Cap Transfer (White)	Triumph/Herald/Land Rover
TR211	\$2.00	Light Decal Off/Side/Head	TR5-TR6
TR212	\$3.50	AC Filter Transfer	Triumph TR3/4
TR213	\$2.00	Light Decal Side/Main/Dip	Triumph
TR214	\$2.00	Light Decal RHD/Dip/Main	Spitfire,TR4,GT6
TR215	\$2.00	Light Decal LHD/Dip/Main	Spitfire,TR4,GT6
TR216	\$2.00	Indicator Switch Transfer	Spitfire,TR4,GT6
TR217	\$2.50	Oil Cap Label	TR2-TR4

**MORRIS** **AUSTIN** **SMITHS** **COOPERS**

THAT FINAL TOUCH TO A REBUILD

Supplies of chassis plates, under bonnet decals and transfers to original specification. The range covers most English classic and collectors cars. Also available copies of "AUSTIN SEVEN COMPANION". Send for free catalogue, F. Twigg, 14 Olympic St., Bundoora 3083. Phone Number (03) 467 2587

Telephone: (03) 467 2587

David W. Twigg

Page 5

14 OLYMPIC STREET,  
BUNDOORA 3083.



ST162



ST163

NEGATIVE  
EARTH

ST164



TR 201



TR 202



TR 204  
TR 208



TR 205  
TR 206



TR 207



SP 401

# STICKERS AND LABELS

PART NO	PRICE	DESCRIPTION	APPLICATION
ST110	\$3.50	Special Tuning Valve Cover	All Leyland Cars
ST111	\$3.50	Electronic Warning	MGB/Midget
ST112	\$3.50	Tyre Pressure	MGB 1973 on USA
ST113	\$3.50	Negative Earth	MGB/Midget/Mini
ST114	\$3.50	Soft Top Label	MGB/C/Midget
ST115	\$3.50	Negative Earth - Red	MGB/MGB V8
ST116	\$6.50	Triple Vacuum Washers	MG2A/ZB, Jaguar
ST117	\$3.50	Warning Label	Midget/MGB/C/Mini
ST118	\$3.00	Plug Removal Warning	Midget/MGB/MGB V8
ST119	\$3.50	Unipart Air Cleaner	Minors/MGB/Midget/Mini 1100's etc. from 1969
ST120	\$1.50	Cooper Air Cleaner (Blue & White)	MGB/C/Midget/Minors/Mini, Jaguar, 1100's etc. to 1969
ST121	\$2.50	Coopers Air Cleaner	Austin Healy 100/5, 300, Mk 1 Sprite
ST122	\$5.00	Lucas Wiring Ties (Set of Five)	British Cars with Lucas Wiring Looms
ST123	\$1.00	Speedo Important Label	BMC & Leyland
ST124	\$2.00	Tudor Wash Bottle - Blue Label	MGB/C/V8/Midget/Minors/Mini, A40, Triumph
ST125	\$4.50	Triplex Laminated Screen	MGB/C/V8, ZA/ZB, MG2A, Jaguar, Triumph
ST126	\$3.50	Leyland Rocker Box Label	Most Leyland Cars
ST127	\$2.00	Smiths Heater Caution - (Red on Black)	MGB/C/V8/Midget/Dolomite
ST128	\$2.00	Heater Motor Direction	MGB/C/V8
ST129	\$2.00	Heater Label - Later Type	MGB/C/V8/Midget, etc.
ST130	\$2.00	Heater Label - Early Type	MGB/C/V8/Midget, etc.
ST131	\$4.00	Brake Servo	MGBs Servo Type Master Cylinders 1974-on
ST132	\$2.50	Valve Cover Sticker	MGB US spec
ST133	\$3.50	Valve Cover Sticker	MGB US spec
ST134	\$3.50	Valve Cover Sticker	MGB/C/Midget, 1100, 1300
ST135	\$3.50	Valve Cover Sticker	Morris, Mini, Minor, 1100
ST136	\$3.50	Valve Cover Sticker	Austin, Mini, A40, 100
ST137	\$3.50	Valve Cover Sticker - Washers	Originally Fitted MGB/C Midgets
ST138	\$3.50	US Federal Labels	Vanden Plas, Princess
ST139	\$3.50	Valve Cover Sticker	Rover P5 & P6
ST140	\$3.00	Body Colour	Rover P5 & P6
ST140A	\$3.00	Silver Birch	Rover P5 & P6
ST140B	\$3.00	Admiralty Blue	Rover P5 & P6
ST140C	\$3.00	Black	Rover P5 & P6
ST140D	\$3.00	Zircon Blue	Rover P5 & P6
ST140E	\$3.00	Burnt Grey	Rover P5 & P6
ST140F	\$3.00	Jupiter Green	Rover P5 & P6
ST140G	\$3.00	White	Rover P5 & P6
ST140H	\$3.00	Arden Green	Rover P5 & P6
ST140I	\$3.00	Bordeaux Red	Rover P5 & P6
ST140J	\$3.00	Almond	Rover P5 & P6

REMOVE ALL BATTERY CABLES  
BEFORE ATTEMPTING TO  
LIFT HERE

ST 114

TRIPLEX  
LAMINATED

ST 120



ST 126

BEFORE PUTTING BATTERY  
1. THIS VEHICLE IS WIRRED  
NEGATIVE EARTH  
2. TO THE POSITIVE TERMINAL OF THE  
BATTERY (SEE INSTRUCTIONS)  
3. BATTERY HAS FILLING LEADS IN  
CORROSION. THE FILLING LEADS MUST  
NOT EXCEED THE TOP EDGE OF  
SEPARATORS IN BATTERY

ST 115

SMITHS  
MADE IN U.K.  
VOLTAGE 12

ST 129

SMITHS  
MADE IN U.K.  
VOLTAGE 12

WARNING  
CLEAN FILLER CAP  
BEFORE REMOVING LID  
ONLY USE JALOUSI FROM  
A SEALED CONTAINER

ST 130

ST 131

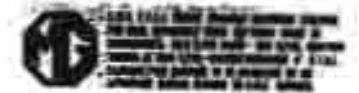


ST 116

ST 132



ST 133



ST 134



WARNING  
DO NOT RUN ENGINE WITH  
BATTERY DISCONNECTED

ST 117

MORRIS

ST 135

THIS FLUID MUST NOT  
BE REMOVED WHEN  
ENGINE IS HOT.

ST 118

AUSTIN

ST 136

FOR ELEMENT SERVICE REFER  
TO VEHICLE HANDBOOK

ST 119

PRINCESS

ST 137

ST 120

COOPERS  
FOR SERVICE OF ELEMENT REFER  
TO VEHICLE MANUFACTURERS  
HANDBOOK

ST 121

PRINCESS

ST 138

COOPERS  
FOR SERVICE OF ELEMENT REFER  
TO VEHICLE MANUFACTURERS  
HANDBOOK

ST 122

PRINCESS

ST 139

IMPORTANT

ST 123

JUDOR

ST 124



# LANDCRAB



Number 31

Landcrab Owners Club of Australasia

December 1990

Our November meeting saw an above average attendance of members and we continue to grow with the addition of three new enthusiasts. Please welcome:

Shasa NUR	17 Kitchener Street Hughes ACT 2605	(06) 281 6323	MkII Sedan (automatic)
Daryl STEPHENS	22 Davison Street Mitcham VIC 3132	(03) 873 3038	MkI Sedan Modified MkI
Ian INGRAM	51 Granville Road Hillingdon, Middlesex UB10 9AE United Kingdom	0011 44 895 37498 (United Kingdom)	Morris 1800 'S' Austin Maxi Wolseley 18/85 MkI & MkII Kimberley MkII

Ian Ingram is the new editor of the UK club's **Landcrab Newsheet**; he is also a purser with British Airways and regularly flies down under. He recently very kindly brought out our spare parts and T-shirts. Daryl Stephens is also a long-time 1800 freak and, in addition to his standard MkI, has a MkI with major modifications such as: alternator, 100/55 Quartz halogen lights, Aeon rear bump stops, auto-type universals, 'S' twin carbles and extractors, a 3.7 differential, and a ported and polished head. Add to that a Wade 240 cam and I would imagine it would just about be ready for takeoff.

At last we received a copy of **Landcrab Newsheet** and, frankly, I found it disappointing. Not only was it hard to read being very small print, but our club didn't even rate a mention which surprised me. Their club now sports in excess of 247 members, the majority of which I suspect are unaware of our existence.

The All British Day held at Weston Park in November was a real success. Geoff Holmes and Mick Oates displayed their MkI sedans; Bill Wheeler brought his English MkI along; Len Eastwood, Ty Reynolds and myself sported our MkII sedans; Warwick Wright showed off his MkII utility; and the All British Day event would not have been complete without the Austin Maxi. This year the organisers included two extra trophies for individual car and best club display. Whilst we did not rate in the latter, I felt Geoff Holmes was in with a very good chance with his immaculately-displayed MkI sedan, with its low and genuine mileage of 15 000 plus a few. It really did look as though it had just come off the showroom floor. Pat Farrell journeyed from Melbourne up to Canberra with his family for the event and brought with him a couple of name badges — blue with a red BMC rosette at one end, the blue our new club colour (as christened by Pat). They are very attractive. These name badges are available from him at \$7 each (plus postage) and includes name engraving. Pat also brought along a white long-sleeved sweatshirt with 'Landcrab Owners Club' on the back. These would also be available at \$26 each should our club generate enough interest.

Overall our club participation at general public displays continues to improve with each event, young

and small though we may be. Perhaps at **Wheels 91**, to be held in February, we could make up a wide banner with poles at each end, sporting the words **LANDCRAB OWNERS CLUB**

**Car of the Century**

Magna owners ... eat your heart out.

Andrew McGregor and a mate of his have tentatively set up a small business on the old industrial estate in Fyshwick. Andrew advises that he can carry out minor repairs to members' cars for around \$15 an hour and his mate can perform panel repairs and paint spraying after 4 pm. For further details, please contact Andrew at home after 6 pm, ph 286 1807.

To things technical now ...

- Exchange water pumps are expensive but it is still possible to buy the individual bearing and seal. A detailed drawing together with the relevant sizes of components and part numbers is included this month courtesy of the AMVC (VIC). Enquiries at Consolidated Bearing Company in Fyshwick revealed that they still stock the bearing (part no FPS 61) and seal for a total cost of \$38. This bearing shaft size is  $\frac{5}{8}$  inch.
- I am reliably informed that bottom hoses for the 1800 are available from Motor Spares, Molonglo Mall, Fyshwick.

You may remember the articles (see Newsletter 29) referring to a possible 'pollute tax' on older vehicles and a proposal by Ros Kelly to phase out the older internal combustion engines. Included with this edition is a printed letter to the minister, which you may care to sign and send to Parliament House in Canberra. It must be remembered that a similar situation existed in the UK last year and it was only through the hard work and unity of the car club movement that it was defeated. Why is it that Australia follows the Poms in so many like situations?

Our technical article this month deals with a complete engine strip of the 1800 'B' series power unit as fitted to our Landcrabs. It comes in two parts and is reproduced from the Sept 1973 English Practical Motorist.

The following is information contributed by Jon Johansen, with the hope that it will be of use to the club:

The suspension pump in a recent newsletter was ingenious in its simplicity. I have one myself, made out of obsolete aircraft equipment, and it works very well. It makes life so much easier when you have the right equipment. I also make the fluid myself; the mixture I arrived at is: 450 cc water, 50 cc alcohol, and 25 cc rust inhibitor (bought from Natra Radiator Services). This is green in colour and smells and looks like the original BMC fluid. I have used this for approximately two years now and it works well. The rust inhibitor is also used in the radiator — the water is always clean. It is an excellent product, highly recommended.

As far as spare parts are concerned, I have come across a company that specializes in rubber parts, Peter Jackson's Replacement Panels Pty Ltd (please see enclosed photocopy). He has nearly everything in rubber products and I had no trouble obtaining new windscreen rubber with filling strip. He also has rubberboots for suspension balljoints and tie rod ends. They come in four sizes — the size for suspension balljoints is part no 270-039 (38 mm) and for tie rod ends part no 270-037 (31 mm). I fitted one for the suspension balljoint and it was slightly tight around the bolt. With a little grease and gentle persuasion it worked out fine. I have not yet tried the boots for the tie rod ends. Peter Jackson also has bushes for engine to chassis torque rod. They come under shackle suspension bushes and it is part no 273-053R (costing \$3.40 each). This is also very good quality.

I bought a catalog for \$5 and I think it is well worth the investment for anyone who wants parts for the 1800. [What he did not have is the rubber mounts next to the muffler on the MkII. If anyone has a part number or where they can be obtained, I would appreciate it very much.]

Another problem I have had is the quality of the CV joint rubber boots. They swell and, after one month's service, they are so swollen that the first fold scrapes against the brakeline bracket. This fold quickly splits to a gapping hole. Twice this has happened, so in desperation I went to Eastside Auto Parts Pty Ltd and explained my predicament. The service was excellent. I ended up with the rubber boot for a Mazda 323; it is slightly smaller but is gently persuaded with a bit of grease. I fitted this in January and keep checking it regularly — satisfactory to date. For those interested, the part number is 53-411 (F001-22-530) outer. The kit includes grease, some circlips, and metal straps — for \$23.

As far as straps are concerned, I have also found electrical plastic ties excellent for using around the inner slide joint and much easier to put on than using wire as they are self locking. They come in different lengths; a packet of 6-inch ties costs around \$10 and contains 100 ties. I have used these ties for several years now and have had no problem with them. They can be found at any electrical installation outlet. The part number is ATF-180L.

The **NEXT MEETING** will be: **Monday, 7 January 1991, 7.30 pm**  
**The Canberra Yacht Club.**

See you there! Have a Happy Christmas and a prosperous New Year!

**Mick**

### FOR SALE

1970 Austin 1800. Good motor, mechanically sound, unregistered. \$750. Telephone 282 5262.

MkII Sedan. No motor, otherwise 90% complete, straight body, no rust. \$50. Telephone 282 5262.

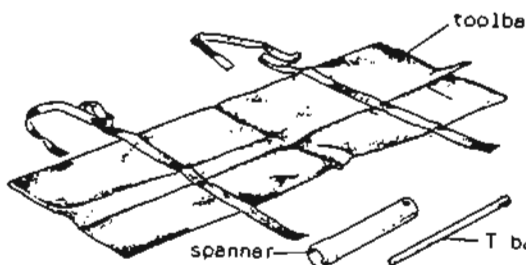
### WANTED

Tool bag, spanner and T bar. Also BMC radio (working or not) to suit Austin 1800 MkII.

Information to complete book on history of BMC. Need production details and chassis number prefixes for Australian and New Zealand produced (and sold) Farina and frontwheel drive vehicles. Also any information on BMC commercial vehicles (production details, chassis prefixes, etc).

Write to Peter Jones, 26 Leichhardt Street, Ruse NSW 2560.

Floor shift T bar baseplate to suit Tasman/Kimberley. Contact Tom Bray, telephone (06) 258 4825, 18 Baddeley Crescent, Spence ACT 2615.



# O.H.V. 1800 V O.H.C. 2200

Acceler.	4.1 MK1	4.1 MK1	3.8 Auto MK1	3.8 MK11	4.1 MK11	3.8 MK11s	3.8 Special Tuning MK11 St1	3.8 Special Tuning MK11 St 2	4.1 Etheridge GT	4.1 Tickled 1800	4.1 S'charg. 1800	4.1 X6 M1	4.1 X6 M11	Austin 3 Lite.
0.30mph	5.0	5.3/5.7	6.0	4.3	4.6	4.0	4.2	4.1	4.2	4.2	3.4	5.0	4.1	
0.40	7.7	8.2/8.5	9.3	7.5	7.2	6.4	7.1	6.3	6.9	5.8	4.9	7.5	6.6	
0.50	11.6	128/130	13.5	11.2	10.3	9.2	9.9	8.8	9.2	7.9	6.4	10.6	9.6	
0.60	16.6	166/180	18.2	15.6	14.4	13.7	15.2	12.5	13.3	10.8	8.2	15.2	13.8	15.7
0.70	22.1	248/284	29.0	22.4	20.2	19.4	21.8	16.8	17.6	14.5	11.4	21.4	21.0	
0.80	33.4	-/-	-	31.8	31.0	28.0	27.6	24.3	24.3	19.5	14.1	28.5	-	
Top Gear														
20.40mph	11.3	-/11.0	9.3	-	-	12.2	10.1	-	-	9.2	-	8.1	-	
30.50	12.2	-/11.2	11.3	-	-	11.0	10.8	-	-	9.4	-	10.0	-	
40.60	12.9	-/11.7	12.8	-	-	12.5	11.6	9.6	-	8.9	-	10.8	-	
50.70	14.5	-/14.5	-	-	-	14.4	12.5	11.2	-	-	-	14.0	-	
60.80	19.6	-/26.2	-	-	-	18.6	15.1	-	-	-	-	-	-	
Top speed	91.8	865/84	86		93.7	101	97	-	108.4	104.2	120	91	91	100
Standing mile	-	20.7/-	21.9	20.2	19.6	19.4	-	-	18.9	18.1	15.8	19.2	19.4	
M.P.G.	-	26.1/25	19	25	24.1	24	-	-	23.8	-	26	18.5	26.2	17
Source	1	2/	3	4	5	6	1	4	7	8	9	10	11	

Sources: 1 Motor UK.

2. Wheels Dec '65

3. Wheels June '68

4. Motor & Auto Car U.K.

5. Modern Motor Jan '69

6. Autocar May '69 U.K.

7. Motor Manual Apr. '69

8. Wheels June '68

9. Wheels Nov. '70

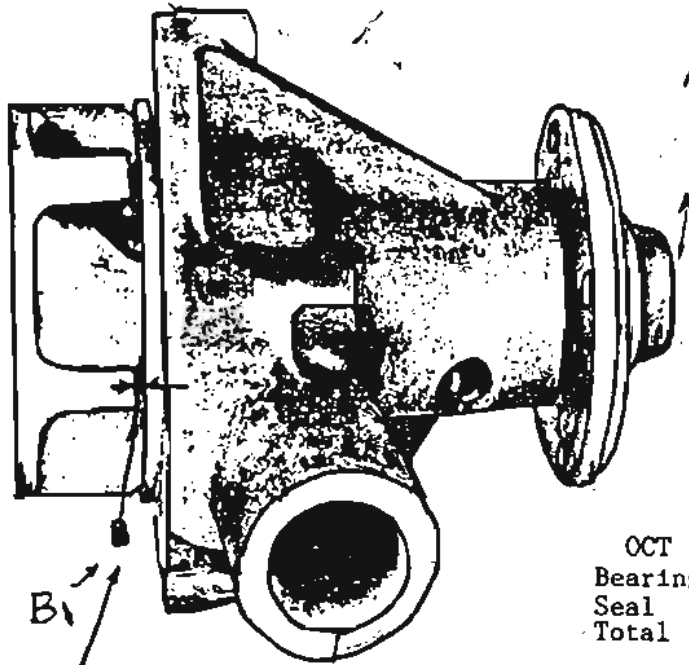
10. Motor Manual May '71 Kimberly Mar. '71 Tasman

11. Motor Manual July '72,

The Austin 3 litre was made between 1968 & 1971. It featured the 1800 centre section and a longer bonnet and boot. The engine was the redesigned C series i.e. 2912 cc OHV 6 mounted north-south and driving the rear wheels. About 15000 were made.



# AUSTIN 1800 WATER PUMP



OCT '90 Prices  
Bearings \$25.90  
Seal \$ 9.00  
Total \$34.90

B<sub>1</sub>

0.020 to  
0.030"

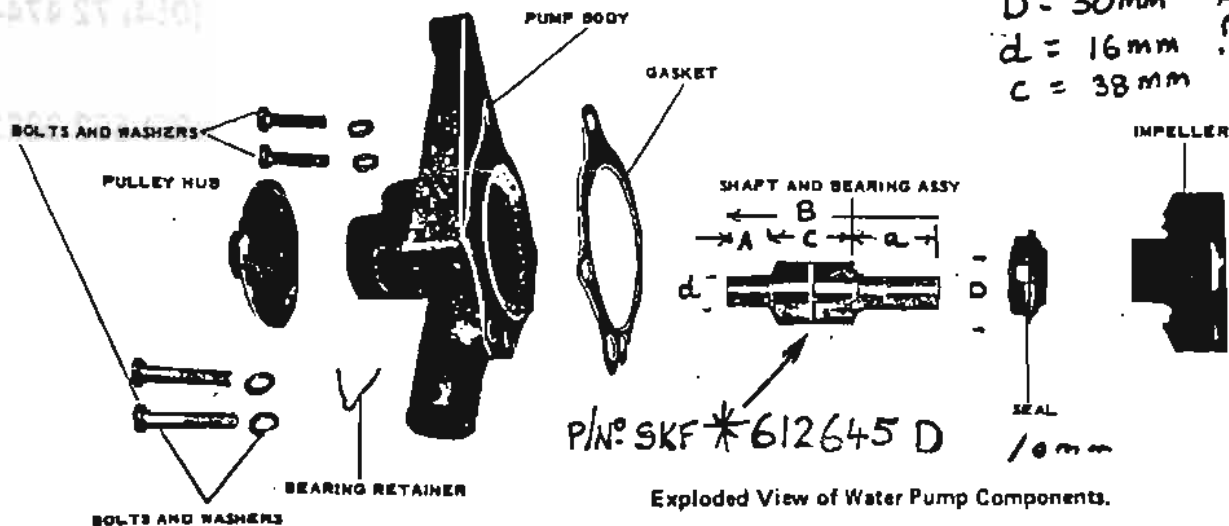
## REPLACEMENT PARTS SOURCES:

CBC - Consolidated Bearing Co .....	FPS 61. (5/8")
SKEFCO .....	612645D ? (metric)
Bearing Services .....	?
REPCO .....	P2619.C2619

Note Dismantle and reassemble per Workshop Manual procedures.

View of Typical Water Pump in Correct Assembly. Shaft and Pulley Hub must be Flush at Point A. Impeller clearance at B should be Between 0.51 to 0.76 mm. (0.020 to 0.030 in.)

A = 22 mm  
a = 40 mm  
B = 100 mm  
D = 30 mm  
d = 16 mm  
C = 38 mm



Exploded View of Water Pump Components.

# TECHNICAL ARTICLE

BY KEN PATIENCE

<b>ACT</b>	<b>Australian Windscreen Specialists, Fyshwick</b>	<b>(06) 291 9661</b>
<b>NSW</b>	<b>Gunnedah Auto Body Works, Gunnedah</b>	<b>(067) 42 1197</b>
<b>NSW</b>	<b>Hastings Auto Paints &amp; Supplies, Port Macquarie</b>	<b>(065) 83 6365</b>
<b>NSW</b>	<b>Morton's Auto Restoration, Newcastle/Barnsley</b>	<b>(049) 53 1411</b>
<b>NSW</b>	<b>Pete's Rubbers, Wollongong</b>	<b>(042) 84 1787</b>
<b>NSW</b>	<b>Riverina Auto Rubber, Jindera</b>	<b>(060) 26 3345</b>
<b>QLD</b>	<b>Vintage Parts &amp; Panels, Michelton</b>	<b>(07) 354 2053</b>
<b>SA</b>	<b>Fitch The Rubber Man, Hindmarsh</b>	<b>(08) 46 5193</b>
<b>VIC</b>	<b>Progressive Auto Components, Castlemaine</b>	<b>(054) 72 4744</b>
<b>VIC</b>	<b>Roverco, Oakleigh</b>	<b>(03) 563 3023</b>
<b>WA</b>	<b>Woodsie's Unique Auto Parts, Dianella</b>	<b>(09) 271 2503</b>

**NSW Head Office & Show-room, St Marys (02) 673 1353**

SHOWROOM: UNIT 4/4 APPIN PLACE, DUNHEVED NSW

POSTAL: P.O. BOX 328, ST. MARYS NSW 2760



**T**HE Austin/Morris 1800 was the logical outcome of the successful transverse engine formula originated on the Mini, but using the reliable old B-Series engine mated to a transmission case under the block. Such a compact unit does have its drawbacks. Unlike others in the range, very little other than a decoke can be done without removing the engine. This in itself is heavy going — 545 lb. of combined engine and transmission is a lot to lift — and it took one of us more than a day to get the engine out. We've included a panel of instructions for this part of the job alone.

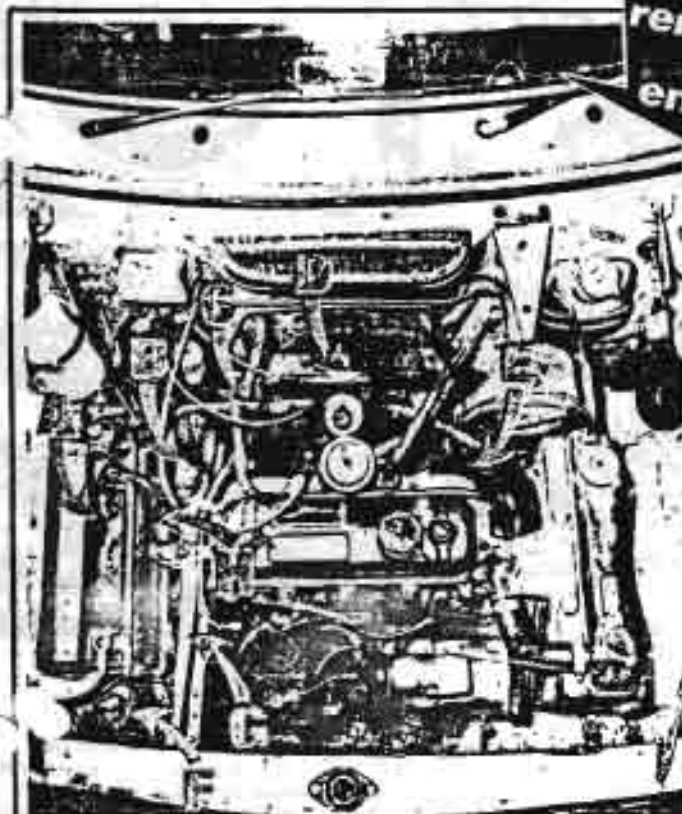
Whether the engine needs simply a new clutch, or possibly a new set of rings, it must come out — which makes the cost of repairs higher than normal. A clutch overhaul in a garage, for example, will cost around £45, so all d.i.y. motorists will appreciate that the more hard graft you undertake the more money you save. In fact, a complete engine overhaul, as detailed in Part One, can be done for about £65. Compared to the cost of a new engine — including fitting, well over £100 — that's some saving.

# A BL BIG'UN



In Part One,  
**TONY  
STUART JONES**  
describes the initial stages of an  
Austin/Morris 1800 engine strip

removing  
the  
engine



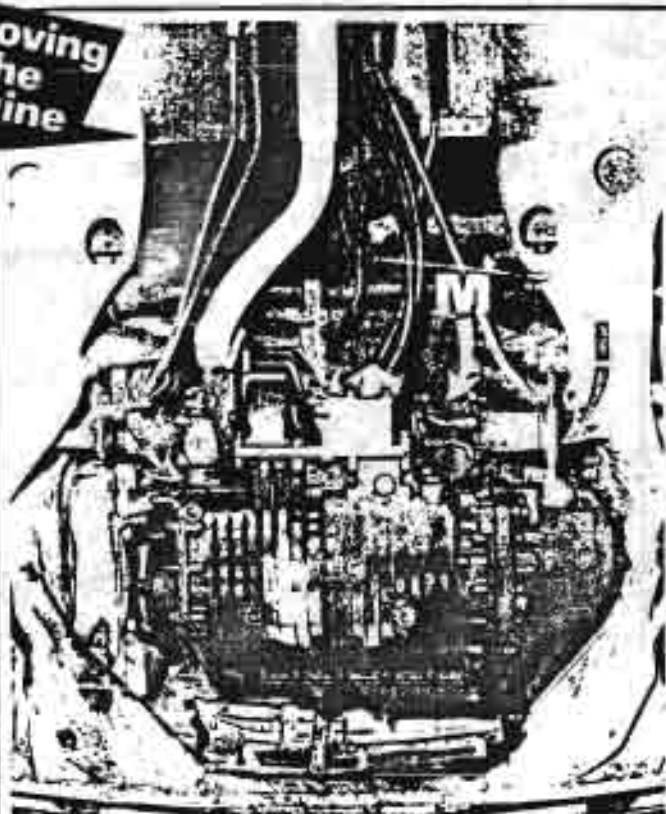
Start with the operations that can be carried out from above. First, drain the cooling system and the oil from the transmission casing. Then remove the bonnet.

Disconnect and remove the battery complete with tray and support shelf (A). Remove the starter solenoid (B) from the cross-member and disconnect the wires to the starter motor and the ignition circuit at the control box. Then disconnect both heater hoses (C), the radiator expansion tank hose, and brake servo hose from the engine.

At the carburettor (D), disconnect the fuel pipe, the throttle and choke cables, and the air cleaner. Unscrew and release the exhaust manifold clamp and loosen the rear engine mounting bolts (E), but do not remove them at this stage. Free the bolts securing the horn brackets, disconnect the wires and withdraw the horns (F).

Now place a good strong rope or wire around the engine and raise it sufficiently to take the weight off the mountings. Remove the top bolt from the engine damper and push the damper to one side. Then detach the two bolts securing the cross-member to the rear mounting, the bulkhead bracket and the front grille support. Withdraw the cross-member (G).

Remove the two bolts securing the slave cylinder to the clutch housing (H) and withdraw the cylinder from the pushrod.



Work from below, next. Disconnect the engine steady at the transmission case (I) and the exhaust pipe bracket from the diff. housing.

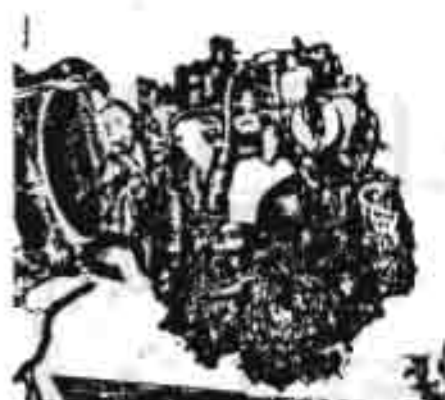
With the gearchange in the neutral position, unscrew the six nuts securing the cable change housing (J) then pull the housing rearward to clear. Disconnect the speedo drive cable (K) from the transmission case.

Remove both front and rear engine mountings (L). It will help if the engine is lifted slightly at this stage. Undo the U bolts on each drive coupling (M), leaving the coupling on the drive shaft. Push both shafts clear of the diff. flanges.

From above, now, lift the engine — lifting it to clear the diff. housing. Then slowly lower it to the ground or on to the bench.

**Practical Motorist**  
**FOUR-PAGE FEATURE**  
**PART ONE**





## A BL BIG'UN



WITH the engine mounted at a convenient working height, we started to remove the appliance, beginning with the radiator (1). Then we removed the rocker cover and unscrewed the rocker shaft pedestal nuts evenly before the shaft was lifted clear.

All the push rods were now lifted out and placed in the order of removal. Then we could remove the head (2), complete with cam and manifolds.

Next, we loosened the fan belt and detached the dynamo with coil attached. This was followed by unscrewing the fan blades and pulley (3). Before removing the water pump, with both tappet chamber covers off, each tappet was carefully lifted out and kept in the original order for reassembly (4).

At the other end of the block now, we removed the starter motor (5) and the wing from underneath. Further work with a spanner soon had the primary

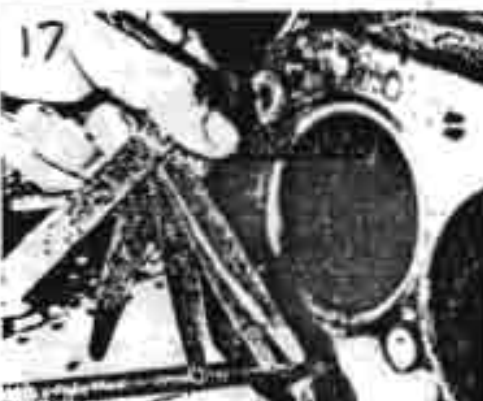
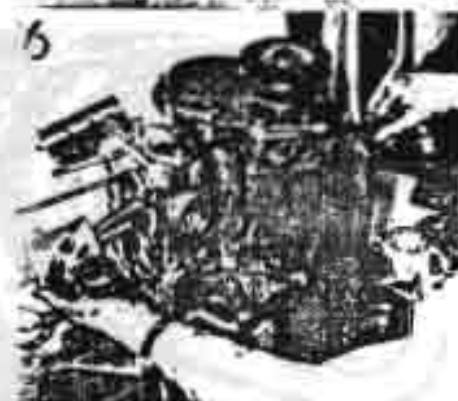
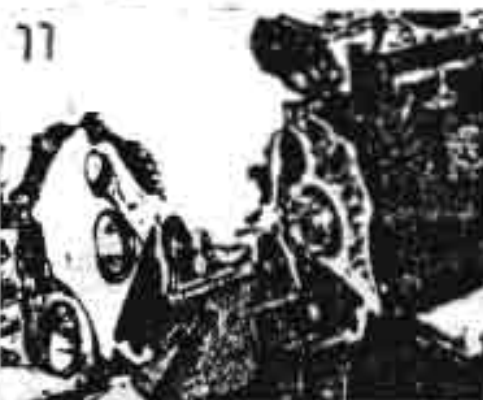
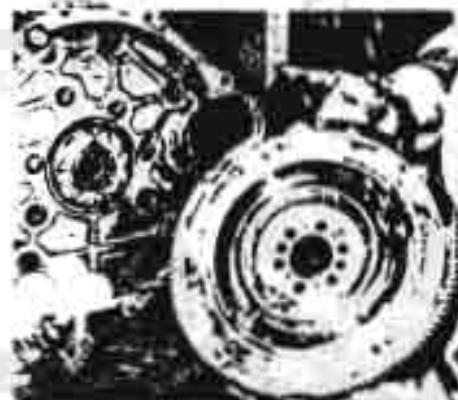
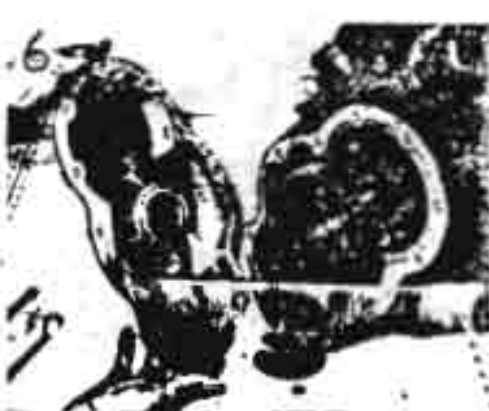
drive cover off (6), and at this point we discovered that the first motion shaft gear had worked loose due to a broken tab washer the remains of which we found later (7). The damage was confined to a rather chewed cover plate (arrowed), although much of the engine parts must have been caused by this.

### clutch cover

After removing the first motion shaft gear, we unscrewed the seven nuts holding the flywheel housing to the transmission case studs and the four bolts to the adaptor plate. The flywheel housing was now pulled clear of the adaptor plate (8). A small quantity of oil was released as the cover was withdrawn.

Next, we removed the clutch cover assembly and the driven plate, unscrewing the bolts





events to avoid distorting the plate. This exposed the bolts holding the flywheel to the crankshaft (8), and after bending back the washers and unscrewing the six bolts the flywheel was lifted clear (10). Further work with the socket and wrench soon had the adaptor plate off (11), although we were careful not to allow the keyshaft springs behind the plate (12) to fall out.

We were now ready to separate the block from the transmission case, and after removing the eleven bolts and six nuts from the casing flange, the block was lifted off (13).

## bore check

With the block suspended on the bench we removed the oil pipe and flange, then the distributor (14). A 5/16in. UNF bolt, three inches long, was used to extract

the distributor drive shaft from the side of the block after removing the distributor housing (15).

Before the pistons could be removed, each big-end bearing cap and its respective con-rod were marked for location and set with a punch. We then removed each piston from its bore (16) by tapping gently on the underside of the piston with the shaft of a hammer.

At this stage we took measurements to confirm that the pistons and bores were fit for further service just with re-rings. A piston ring was placed square in the unworn top section of the bore, and a ring gap measurement taken (17). The ring was then pushed down into the worn area and another measurement taken and compared with the first. The difference at our case was 0.008in. — well within the re-ringing limit of 0.12in.

An examination of the crankshaft big-end journals (18) and their respective shell bearings revealed, again, very little wear, although most shells had just a hint of copper backing showing through, making replacement with new standard shells necessary.

## oil glaze

Adding up our list of spares, the requirements coincided almost exactly with that offered as an overhaul kit (19) by GMA (Reconsets) Ltd, Sheppards Works, Chesterfield, Derbyshire S41 8DD. And very comprehensive it is too. Everything for the overhaul is included — valve grinding tool, piston ring compressor, grinding paste. Nothing is forgotten, and sure all coming by return of post.

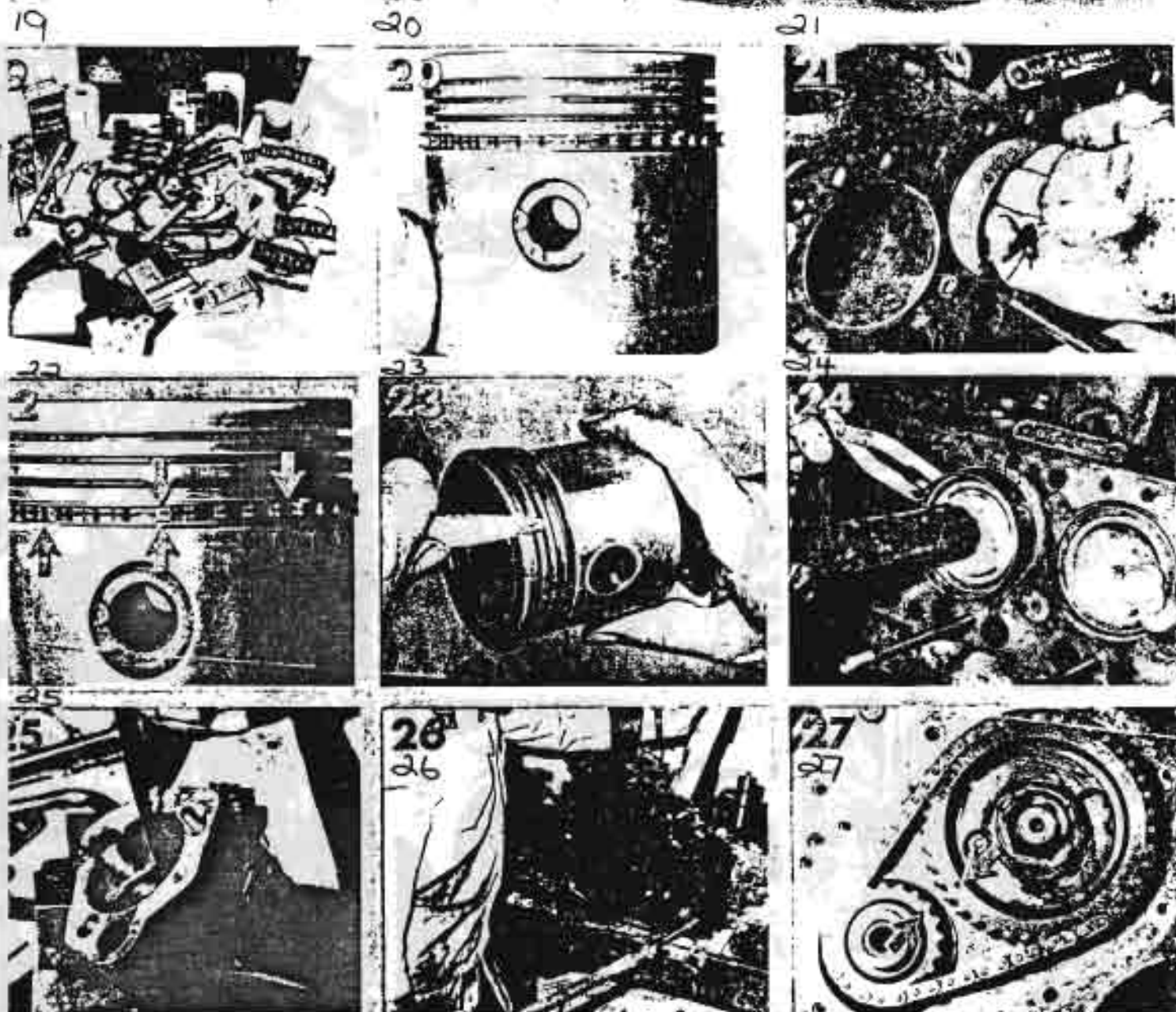
By the time the Reconset had

arrived, we had cleaned up the block and the transmission case with vast quantities of paraffin. Each component so far removed was examined for wear and placed back in order on the bench ready for reassembly. Even the pistons, when cleaned, looked new (20).

The first thing that we did was to rough up the bores to break down the oil glaze, using the very coarse paper provided in the kit. Something over five minutes, rubbing each bore (21), we eventually had a matt finish.

Our special ring kit contained a "ridge dresser" top compression ring, standard tapered compression rings, and a special oil control ring. By following the clear instructions on each packet about the fitting and the gapping,





## ABL BIG UN



each compression ring was fitted so as to be gapped at 120 deg. to the other. The oil control ring has to overlap (arrowed) (22). One by one, each piston was re-ringed by slicking the rings into position with a feeler gauge (23) and fitted back into its respective bore with the ring compressor provided (24) noting that each piston crown has the word "Front" marked on it.

## bottom end

At the bottom end, we fitted the new bearing shells and coated them with a graphite running-in compound before tightening the cap bolts to 40lb.ft. with a torque wrench. At this stage we checked the crankshaft for any signs of tight spots by revolving it by hand to check the fit of the bearing shells. Before the block was

mated with the transmission case once again, we removed, cleaned and checked the oil pump for wear (25), before refitting it, together with a new gasket. Ours was within the limit of .006in. at the lobes.

## pulley nut

So far, we had not removed the timing cover — mainly due to the difficulty of unscrewing the pulley nut. Eventually it yielded to the leverage of a 3ft. exhaust pipe on a spanner, with the crankshaft jammed by the shaft of a hammer (26). Only then could the pulley be withdrawn, using a screwdriver on each side for leverage. With the cover removed and the sprocket bolt undone, both the sprockets and chain came off easily.

The new chain was fitted (27) so that both the dimples

(arrowed) on the sprocket rim were in line. An additional part which, in our case, was badly worn was the tensioner. This was replaced by a later type having no means of retracting the spring inside the body. We found the easiest way to get round this one was to compress the spring until the cylinder entered the plunger bore, and when the peg reached the top of the helical slot, the spring remained compressed. We then fitted the tensioner in position, finally giving a gentle tap on the body to release the spring.

