

# Leylines 89

Canberra and Districts Leyland P76 Club Newsletter December 2010

Next Meeting: Tuesday 7 December  
Weston Ck Labor Club  
Club Christmas Dinner  
From 7.00PM

**Note the earlier time!!!**

**Photo: Bryce French**





## Editor's Note



Unfortunately I missed last month's meeting but I gather from a discussion with Bryce that we had at the Belconnen Markets that no real decision was taken about the location of the Club's Christmas get-together. So I've scheduled it for the usual venue.

Marques in the Park a couple of weeks ago was a pleasant day out for four club members and their cars. Bryce, Damo, Jason B and I spent some hours whiling away the time under the trees or wandering around inspecting the wide variety of cars that usually find their way to John Knight Park for the event. Special smiley stamps for JB who got up at 5.30 am and drove all the way from the Central Coast and still managed to drive into the event just ahead of me, and I live just 10 minutes away from the venue! That's devotion to the P76 that's above and beyond the call of duty, for sure. It was great to see his pink taxi in the metal. It's a fantastic restoration and excited a great deal of interest on the day.



Photo: Bryce French

A few months ago I reproduced part one of an interview with Bruce Elson, former service manager with Leyland Australia. Part two is in this month's Leylines, and it makes great reading. Thanks to the Mentiplays and Westwords for this excellent piece of Leyland history.

See you on Tuesday at the earlier time of 7pm.

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## Marques in the Park

If you were at Marques you might remember the large 42 year old Nikon SLR camera that I was carting around. It was donated to my small camera collection by the workmate of a friend and I thought that I'd run a film through it to check it out. Unfortunately, the auto exposure mechanism was broken, so I was guessing the correct exposures. All the results were quite pleasing. These pix are scanned from prints. They would be even better scanned directly from the negs.



No prizes...



Early 50s Humber Hawk



Buick Hardtop circa 1957?



VW Type 3 wagon



Obvious...



1959 Chevrolet

## Interview with Bruce Elson Part 2

### *Field Service Manner — BMC/LEYLAND AUSTRALIA*

Interview contd...

#### **The poor door fits and poor body sealing must have been a nightmare?**

**BE:** The water and dust leaks were just a bloody disaster. The vehicle relied on everything being 100% during assembly, otherwise there were problems. On the early production cars, where the handbrake cable goes through the floorpan wasn't sealed with a gasket, and this let a lot of dust into the cabin. Door window regulators did not have a gasket between the regulator and the door, which was another point of entry for dust.

The door window guides were another problem — these should have been drilled and screwed, so that the guides didn't come off the glass. By gluing them in assembly, it was just another area where problems could arise. The steel guide had to be clean and level, the glass had to be clean, and hopefully the assembler was using the correct amount of Loctite to bond the guides properly. On too many occasions during general service, these items failed, causing the door glass to drop into the door.

Water entry into the cabin caused problems. The original flat sill plates in the door apertures was another good idea in theory, however they relied on the door and seal fits being absolutely spot on. Because of the poor fit of the doors to the body on the early cars, the door seals weren't in contact with all of the door aperture surfaces, which is what it was supposed to be. Consequently, the water would get under the seal in places and run into the cabin. The poor fit of the doors to the body resulted in dust and water leaks, and plenty of headaches for the dealers.

During the early months of production, there were problems with the body shells in the SMBD. The door frames were not a great fit, because the turret was being pulled down onto the A pillars, which caused deformities of the door apertures. To fix this problem, we came up with a stay between the bottom of the B and C pillars to the top of the A pillar, to stop this occurring during body shell construction. When the turret was put on, the stay prevented the A pillars being pushed down.

An example of our lack of experience in some other areas:

- A. Automatic Transmission Dipstick Filler Tube: everyone else had them, we didn't. What did we have to do — campaign the bloody things.
- B. Muffler Heat Shield: everyone else had them, we didn't. What did we have to do — campaign the bloody thing.
- C. Brake Banjo Bolts: Holden used exactly the same caliper — did they have a campaign — no. We did, because we designed another banjo bolt. Why didn't we use their bolt?

Gearbox Mounting: why the hell didn't we make them with parallel mounting faces, instead of making one angled, so that there was always the chance of it being fitted the wrong way (I noticed workers struggling at the body drop section of the assembly track

one day, trying to fit the rear cross member. The gearbox mounting had been fitted the wrong way).

In hindsight, we didn't look hard enough at some things before full production. There was never enough money.

As I stated earlier, they were a difficult car to put together during production. You needed to be Superman to put it together. We designed the car, and it met all criteria as far as vehicle dynamics and general road handling is concerned. It was always a good car to drive. However, it was not a 'production-friendly' car in the factory. The P76 was a more difficult car to assemble in mass production than the Austin 1800. The workforce was enthusiastic –the P76 was popular with the majority of them.

The prototypes did not reveal many of the faults that plagued the early production cars, mainly because the prototypes were hand-built, and therefore didn't have the problems of the assembly line cars.

As part of our dust entry investigation, we had developed a hard foam block that was shaped to slot into the rectangular hole in the RH inner guard behind the strut tower, where the wiring loom came into the engine bay. The work station where these blocks were meant to be inserted was on the first section of elevated track. The wiring harness was put in as the cars were climbing, and then right at the top of the elevated track, a female worker had to put in a section of wiring harness and then close the aperture with a foam block. This open vent had let a lot of dust into the cabin on the early production cars. The female worker had been fully instructed to fit these foam blocks as her last task at her work station.

However, we noticed that the majority of cars coming off the final assembly track did not have the blocks fitted. We checked a number of times, and things had not improved, with most of the cars coming off the line without them. Exasperated, I again went to see the Quality Control bloke in charge of that section, and told him to get rid of that worker – only to be told that she was his wife! In reality, it was not an easy job for a woman, because you had to have a strong hand to fit these blocks into place.

The factory should have been extended to cope with the larger cars we were making in the 1970s. In the days of the Mini, Morris 1100 and Austin 1800, we had enough work stations on the assembly lines to comfortably complete all operations. When producing a much larger car, the P76, the number of work stations was reduced, and there was less space to put cars off-line to correct faults, etc. The P76 was longer and wider than anything we had built previously at Zetland, and there wasn't a lot of room at most work stations on the lines. You had to be very careful when opening car doors. A larger factory building would have allowed for a revamped assembly line capable of taking large car bodies through the various work stations.

### **Can you tell us more about the Dust and Water Leaks Task Force?**

**BE:** The dust and water leak problems of the early production P76s resulted in a special Task Force being set up at the factory. People on the task force included Ian McDonald (from experimental), Chris Collins (body hardware engineer), Basil Barriga (Quality



Investigation Group), and from the Service Department came Keith Wells and myself. Our normal jobs still had to be performed, of course, as well as the task force duties.

After our initial investigations, in early 1974 the Dust and Water task force decided to build a car on line that was as close as possible to original drawings. We hand selected all the panels and doors in the SMBD, and supervised that all jigs in the body shop were used in constructing the body shell. It was then pulled off line, whilst we fitted our sealing between the inner and outer guards at the rear, and all panels were hand sealed before the body went through the paint shop. I remember going in one morning, after the body shell had been through the paint shop, and could not find the car anywhere. Ian McDonald and I searched everywhere, but could not locate this car. It had been tagged and taken off line and parked out of the way. We eventually found it, after a fair bit of effort, and it was then put back on-line for the assembly tracks.

This vehicle, a Level 2 (Deluxe) model, was then followed down the assembly line, to ensure correct assembly procedures. All the glass was fitted correctly, all body sealing was done as per task force recommendations, and round door seals and boot seal were fitted.

When completed, the car's exterior was sectioned off, like a graph sheet, and small pieces of wool were fixed to the intersecting lines. We then drove this car, accompanied by another P76, down the then-new Great Western Motorway (which had been completed, but was not open to the public at that time). We drove onto the Motorway at Huntingwood.

We had obtained permission to use the road from the relevant authorities. The two cars were driven side by side down the Motorway, with plenty of photos and film being taken during the journey. The whole exercise was to investigate the air flow pattern over the body of the car. This exercise told us that the air flow at the base of the windscreen was straight up and over the top of the car — very little air flow was going into the plenum chamber area, which meant that cabin ventilation was not very effective. Unless you had the fan going, you didn't suck any air into the intake vents.

Following that exercise, Basil Barriga and Chris Collins then took this car to Sofala and Wattle Flat, to conduct further testing. Unfortunately they rolled the car, which suffered severe damage to roof and doors. Fortunately there were no serious personal injuries, except for Basil getting a cut to his arm. The car was a write off, and was never repaired.

Two early examples of bad dust leaks stand out in my memory. A customer had purchased a P76 from Mildura, and drove the car regularly from their property at Pooncarrie to Mildura over dirt roads. The car's cabin and boot were absolutely covered in dust. We traveled down to Mildura to investigate the customer complaints. They lived about 100 kms out of Mildura, so we drove over the same roads they were using, to get an idea of the conditions. We arranged to get their car into Syd Mills Motors, the Mildura Leyland dealer.

Four of us had driven down from Sydney in two P76s, with all of the gear we knew we would need to effect solutions. The customer's car was stripped out completely, with the interior being washed out and cleaned. With just the driver's seat in place, it was then

driven over dirt roads, to find where the dust was coming in — we soon found that it was coming in from everywhere!

All the doors were removed and resealed, and all the other dust entry points were sealed. The best way to find dust or water leaks is to use a light under and around the car at night (or in a dark workshop) — from the inside you can pick out where the light shines through into the interior.

We did this at Syd Mills' workshop one night, working until midnight in an effort to trace and fix all possible dust entry points. The car was cleaned again, and the interior put back in, and returned to the customer. They were happy with the car after that.

The second occasion was a customer had bought a new P76 from Tenterden (*Tenterfield? ed.*) or Armidale, and was living or working in Cloncurry, Queensland. A similar exercise was undertaken on this car as in the Mildura case, with four people from the service department being up there for a week.

We had a dedicated hard working team to assist the dealers. We had three people with fully -equipped orange Mini vans visiting the dealers to help solve problems in NSW. There were 3 vans in Victoria, 3 vans in Queensland, 2 vans in SA, and 2 vans in WA. These Mini vans were orange and had a blue flash on the side as well as 'Dealer Support'.

Some suggestions I made for a Mark II version of the P76 sedan included: fix the windows; chuck the dash/fascia out; fix the ventilation system; fix the shuddering windscreen wipers, and replace the door glass scraper rubbers, among others.

### **What about the Force 7 coupes, and other special cars?**

**BE:** Charlie Wilkins had a lot to do with 'one-off specials.' He was our director of manufacturing, and built a turquoise Mark 1 Kimberley with two rear bumpers. I remember Bill Serjeantson, Tom Warner, Charlie and myself all went on an around Australia trip, to attend dealers conferences in all states. They were good trips — I remember Charlie never needed a hand with his luggage at the airport, he always travelled light. He was a top bloke.

We also had a small task force working on the Force 7, including Keith Wells, myself and others. I remember working from 7am on Saturdays in an effort to fix some of the ongoing problems. The door glass was causing problems, and the fibreglass nose cone was a continual source of trouble — it was a disaster area. It would have been a nightmare area for the production people on the assembly lines.

We didn't know that the curtain was coming down. We had no idea, not until the announcement on 10 October 1974. The coupes should not have been crushed. Some other way could have been found to dispose of the cars as runners. It was not an easy question for the company — I don't think we would have been allowed to sell the cars to the public without compliance plates or without a warranty (apart from what actually happened at the Force 7 auction in 1975).

We had been working on the Force 7 right up until 10 October, and then someone says: 'don't worry about that anymore'. The decision to crush the majority of the finished coupes just destroyed the production people totally. To see all that effort wasted was absolutely soul destroying.

I will always believe that not enough effort was put into the decision on what to do with the Force 7s. If they had wanted to crush the cars, then that should really have been done off-site, not at Zetland, where the employees witnessed the destruction.

Some of the coupes had compliance plates, but not all of them. The prototypes didn't, and some of the other pre-production cars also did not carry compliance plates. The compliance plates were all removed from the cars that did have them, because Leyland had cancelled the application to the Australian Motor Vehicle Certification Board for the Force 7, so legally the cars couldn't carry the plates.

In hindsight, I believe that it was all over for the P76 and Force 7 the moment David Abell arrived from the UK. Peter North had been told on a trip to the UK in early 1974 that he was to shut the Zetland plant upon his return to Australia. He told them that he wouldn't, not while he was CEO. Peter introduced a lot of new ideas into BMC / Leyland Australia during his tenure there – they were all beneficial.

### **You were also involved with the New Zealand P76 CKD programme ?**

**BE:** The major problem with the New Zealand P76 CKD program was that it was just starting when Leyland was closing up shop in Australia. I was over there assisting NZMC with the introduction of CKD assembly. NZMC had imported quite a few fully-built P76s for sale in New Zealand prior to setting up their CKD assembly at Petone, in Wellington.

The problem with NZMC was that by the time their operation started, Zetland was closed, which meant that there was no back up in the sense of stamping out new panels if the shipping had caused any damage. We had to use spare parts stock in Australia. Sometime earlier in New Zealand, I can recall there were always shortages with the UK Marina CKD assembly. At one stage there was something like 600 or 700 cars at the factory, all incomplete. The UK chartered a 707 aircraft to fly out components at one time. The requisition telex for the CKD parts was something like 70 feet long!

The NZ Marina used the B series 1800cc engine, same as the UK Marina.

I was not permanently based at Petone – I flew back and forth to Australia on a regular basis. When the end came at Zetland, I was never actually offered a redundancy package. I suppose they thought they would still need the service personnel after closing Zetland, unlike the people in experimental, production, planning, etc. Mike Medlock had joined the service team from the experimental department.

### **The Service Department was still busy long after Zetland closed?**

**BE:** For the service department it was extremely busy after Zetland closed. We moved to Oxford Street in Bondi Junction, and of course we still had to look after the Mini, Marina and P76 cars that had been sold, and were still under warranty. The service





team had been reduced drastically in numbers, but the workload didn't diminish. We no longer had the support of a fully-operational production facility anymore, either.

During the last months at Zetland, the service department had people like Keith Wells, Mike Medlock, Barry Solomon, Paul Milefield and others. We moved out of the Tote Building in Zetland after production ceased, and used offices in the main administration building on South Dowling Street, before we moved to Bondi Junction.

Some time later Service moved out of Bondi to Milperra Road in Revesby, which was the Leyland commercial plant. We were looking after cars, trucks, tractors by that stage. The set up at Revesby was quite good – we had two bays in the truck workshop, and by that stage we were also operating in Dann Street Waterloo. This had previously been the site of the service training school. The training school and company car workshop was moved to Revesby, and Dann Street became a base for our service department. Eventually, Service moved again, this time to Heathcote Road, in Moorebank.

### **The company had reverted to importing British cars by then?**

**BE:** By the time we moved to Moorebank, we were dealing mainly with Triumphs, Rovers and Jaguars. The Rovers were assembled in New Zealand because of the NZAFTA (free trade) Agreement. The short wheelbase version of the Jaguar was also assembled in New Zealand (that was a disastrous project, I can tell you).

Some people complain about the P76 problems – well I can assure you some English cars were far worse. I used to give the Poms heaps over their SD1 Rover. We got six pre-production Rovers the day before Xmas, I had one of the metallic blue cars. On the way home from work, I used to drive down Heathcote Road and along Henry Lawson Drive. I was traveling home when it started to rain. I grabbed a cloth to demist the windscreen whilst driving, and bang - the windscreen falls out onto the bonnet. Norm Prescott's Rover was continually locking him out of the car, he couldn't get back in. The SDI was perhaps the greatest disaster I have ever seen. You name the problem, it had them.

The British High Commission had a 2.6 litre 6 cylinder SDI. We had this out at Heathcote Road one day – it was a terrible car to drive. It didn't have power steering, and was an absolute pig on the road. It didn't have power-assisted brakes, either (obviously the poverty pack model). If I remember right, the SDIs were not air conditioned either, which is a definite drawback in Australia.

The SDI looked nice, but in reality was a dreadful car. The door trims came off, the roof lining collapsed, there was no end to the host of problems. The concept was fine, and while they were mobile, they were OK to drive – the problem was that they didn't keep going for very long.

I left the company (by then called JRA) in the latter part of 1983. From then until now I have been a consultant engineer full time, working for organizations like NSW Fire Brigade, Rural Fire Services, Australian Customs Service, AQUIS (Quarantine) and others.



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## Final thoughts?

**BE:** The legacy of BMC Leyland Australia is that a lot of skilled people were trained and gained valuable experience that they carried into later jobs and lifestyles. Unfortunately the passage of time means that most of them are now retired, no longer in the trade or have passed away. They are not being replaced today by a younger generation, as there are no more training operations like BMC/Leyland Australia used to conduct.

The impact of Leyland closing in Australia was felt outside the Leyland workforce. ConWire, run by Warren Wright was heavily affected, as were other component firms like Lucas, Castalloy, Borg Warner, TRW, etc.

If you look at the P76's legacy, they have left an engineering feat that would be very difficult to repeat today. The world car concept and economic globalization means that no more Australian cars will be developed for the market. What was achieved on a 'shoestring budget' (even by Australian standards) was admirable, and the surviving cars in the car clubs are testimonials to the legacy of BMC Leyland Australia in this country.

The Mini and Morris 1100 were both very good cars. My mother used a Morris 1100S for quite a few years. I liked the P76, and I also liked the Triumph 2500s. I had all of those cars as my company car over the years.

**Bruce Elson** was interviewed by Gary Mentiplay and James Mentiplay on 18 March 2008

*Thanks to Gary and James, and Westwords, for this article*



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