1974 – The Factory Closes

Introduction

This article lists a series of Facebook posts I made to mark the 50th Anniversary of the closure of the Leyland Australia factory at Victoria Park, Waterloo. Unlike my books, in these posts I have allowed myself the luxury of a little personal opinion as to the circumstances surrounding these events. Some ex-factory employees may not agree, but I would venture to say that most factory employees have not had the opportunity of standing back and examining the wide range of original documents that have surfaced over the past 10 years or so that go so far to explain how thing happened and who was involved.

Interest in BMC Australia and Leyland Australia remains strong amongst those who remember those days and those wonderful cars that we all enjoyed owning and driving. If my posts further that interest, then I have met my goal.

I wish you happy reading.

Tony Cripps

October 2024.

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Episode 1

The time is January 1974, 50 years ago, and the P76 has been on the market for some 6 or 7 months. One problem was production keeping up with demand. Optimism was high. Wheels Magazine awarded the car the 1973 Car of the Year and a very proud David Beech (on the right) was on hand to accept the bronze plaque (the current whereabouts of which is unknown).

But, beneath the surface, there was a feeling of disquiet – and on several fronts.

Late in 1973, the Government was meddling in the motor vehicle industry with a Tariff Board enquiry document of which local manufacturers were given the opportunity to make comment. Leyland, with a heavy investment in local content, did not relish the thought of major upheavals of the rules at this sensitive stage.

On the engineering front, the plastic moulded front (the largest ever made in Australia) for the 2 door model was giving problems. The car was due for release in late March, but despite hundreds of attempts, the manufacturer in Melbourne couldn't make a part to the required dimensions, it would

sag between the internal supports. Then later in the month, the moulding press broke down – March was an impossibility. Release was put back to May.

But more serious for the local team were the service problems. Norman Prescott's memo to John Kay was the first to clearly state that underneath the gloss, there was an emerging disaster, and this memo is worth quoting. Prescott writes:

"The P76 gives rise to mixed feelings. Basically, it has some very appealing features – a good eye-catching body styling (in spite of some rather questionable areas) and a generally pleasing mechanical performance. However, it fails badly in a number of what might be called environmental factors – "living with the car" – and female comments come strongest in this regard. This emphasises, once again, the need for more operational testing and proving in the design stage, covering every user requirement down to the smallest detail. Our proving tends to be confined to durability! The other major failing is in the ability to build the car to a desirable "fit and function" quality level. This comment is not to be confused with the to-be-expected early production faults. One must wonder whether the economic restrictions have made it difficult for us to produce this car consistently with good panel fits and complete water/dust sealing (and for it to remain so in service); also for detail equipment to function reliably straight off the assembly line."

The immortal words "living with the car" says it all. The engineers who dominated the development did not "live with the car" and by the time problems started to surface, they were busy on other matters. The standard response was that if there was a problem, it must be because the part was not made to the drawing!

In our next few posts, we'll look at the mad scramble to plug the leaks (pun intended). In the middle of all this, David Abell arrived with a sharpened axe. There was plenty to attract his attention.

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Episode 2

Let's talk about the Experimental Department. Experimental was one of two halves of the Product Engineering Department and was established in 1957. The other half was the Design Department. The Design Department were mainly concerned with achieving local content of UK-designed vehicles, as well as the development of some unique Australian models like the 1800 utility.

In UK, you could get both Morris and Austin versions of similar cars made by BMC. Brand loyalty in UK was important. You were an Austin man, or a Morris man – traditionally bitter rivals but now in a forced marriage. In Australia, the names Austin or Morris didn't matter so much. Durability was the watchword and even VW gained an enviable reputation for being almost unbreakable.

An official document puts the Department's brief as:

> "Manufacturing a basic U.K. design in Australia, using castings made in Australia, pistons, bearings etc. from specialist Australian suppliers mean that full proving and development of the engine functions of endurance, oil consumption, piston blow by, bearing life etc. must be carried out. Materials that are commonly available in England for components are frequently not available in Australia or the cost structure is quite different. This necessitates close examination of the function and stresses in the parts involved, such as steering and suspension mechanisms to enable the most economic material and treatment to be used. Rig testing of these components and comparisons with the overseas counterpart, backed up by road testing is required to enable the company objectives to be met. In the past vehicle structures have been found inadequate for the Australian scene and road proving of strengthening modifications before manufacture commences has been required."

Please notice the language: "function and stresses", "endurance", "vehicle structures", "strengthening modifications", and so on. Indeed, in all the Experimental test reports, from 1958 until 1973, there are no "living with the car" tests or appraisals and it is these sorts of tests that Prescott was talking about.

Veteran motoring writer Peter Burden put it like this:

> "Leyland's engineering staff got their sums right with beaming and torsion, weight distribution, effective torque delivery and a hundred other things. This is the business of a car propelling itself from one position to another, and in fairness the P76 does this in quite an acceptable way. But it is not a motor car. Leyland fell down with the subtleties of design."

Bill Tuckey had similar doubts:

> "It is probably a little hard for the layman to understand, but when you see at first hand the incredible, awesome depth and strength of the engineering, marketing, research and styling in GM-H and Ford, then you can't help wondering where BL Australia – little BMC – is going to find the talent needed to do all those things that go together to make a successful car."

"Living with the car" – the interior lamp lens falls off if you slam the door, the cigarette lighter gets stuck and won't pop out, the door lock button jams in the escutcheon and the whole lot comes up and can't be pushed down again…" These are examples of the smallest details which went untested and unremarked until the customer complained.

The historical focus on durability meant that the subtleties of design were not appreciated, or if they were, just could not be addressed in the time or budget available – just as Prescott had remarked to Kay at the time.

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In later posts, we'll examine some of the more serious matters that arose from the basic design of the car and after a pretty gruelling dissection, we'll pass through the resignation of David Beech to the arrival of David Abell. Contrary to what most people might think, Abell did have a choice and there was a key moment in a meeting which tipped the balance.

In our next post, we'll have a look at David Beech. A remarkable man who did what very few achieved. Not only did he bend Stokes to his will, but almost single handedly pushed through the development of a completely new car with a very limited budget and a very small team.

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Episode 3

David Beech was an Austin man from Longbridge, starting there as an apprentice in 1942. He came out to Australia with a select group of eleven engineers in 1955 (or early 1956) to set up the Unit Plant, and was appointed "Manufacturing Engineer" – bringing his family with him.

In 1961, Managing Director Abbott and finance director Sainsbury were summoned to UK and told in no uncertain terms that they had to make the factory profitable – which they did by laying off staff. It was recognised then that BMC Australia made too many models which only cut their portion of the pie into smaller pieces, not a larger piece, The arrival of the Issigonis FWD models saved the day, and for a while, the company made good profits. But by the mid '60s, things were starting to go downhill and urgent action was needed before UK started asking questions again.

Beech was appointed to oversee a small group tasked with developing a long-term model policy for the local Company. At this time, the Australian market was dominated by large cars – the Ford Falcon and the Holden models. But, BMC made small cars, and so it wasn't surprising that Beech and his team started looking at a bigger car. Ironically, and probably unknown to Beech, GMH and Ford were starting to look to adding smaller cars to their range (Cortina/Escort/Capri, and Viva/Torana).

Beech's Future Product Policy report recognised that UK were not going to come through with a large car for the Australians to manufacture, and to give himself more ammunition for the bold proposal of the Australians designing their own car, he didn't send his report to UK, but rather, got approval from Abbott to spend about $250,000 to set up the Advanced Model Group to begin preliminary design work on a two-model lineup (which became Model A (a small car) and Model B (a large car)).

What Beech wanted was to present the UK management with two options, costed and ready to go: 1. A scenario in which existing (or future) UK models would continue to be made here, and 2. A where Australia would produce its own cars suitable for local conditions and market.

At about this time, Beech had joined the Board as Director of Engineering after having been an associate director since 1963, reporting to Abbott.

In March 1968, it was arranged that Stokes would visit the Australian plant and that Abbott and Beech would then visit UK in early April to present the Policy and options. Stokes, however had his hands full, and didn't come. Abbott and Beech travelled to UK instead, while (unbeknown to Stokes) development work continued in Australia in anticipation of programme approval.

Negotiations and discussions dragged on for some six months, and with things in flux in UK, it was

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difficult for Beech to make any headway. Even his choice of stylist created difficulties with Beech wanting Haynes, but Haynes coming head-to-head with Webster.

In desperation, Beech told the UK management they would take Marina as Model A as long as he could get started on Model B, the large car (still quietly undergoing development back in Australia). Stokes sent Jack Plane out to have a look at the situation, and to Beech's satisfaction, Plane was taken with the idea and gave it support back in UK. But things still dragged on with UK sending out a constant stream of high powered finance managers to make sure this was all going to work at a profit – while development kept going on behind the scenes.

It wasn't until the end of 1969 that approval was given. A budget of £8.7M was allocated with £0.5M contingency – pitifully small for the development of a new car from a blank sheet compared to that spent by Ford and GM-H on their models, but Beech had his way.

From then on, Beech shepherded the car through almost on every front, from styling to engineering. But, by 1971, development costs were starting to increase, and the factory was over-stocked. It wasn't long before someone was sent out to review the financial situation. In April 1971, Don Main arrived in Sydney to find the factory over-stocked on vehicles, too many spare parts on hand, and excessive debtor levels.

As for Beech, Main writes:

> "As director of both Marina and P76 programmes along with production and control of materials "is expecting too much of one man, no matter how capable he is."

Sainsbury's role as finance director of the Austin-Morris division was seen to be too restrictive and that an overall Finance Director with access to all Divisions was recommended – which ultimately led to the appointment of Peter North. The programme nearly got shut down, but Beech ignored the instructions from UK and kept going.

By this time, Abbott had retired. John Martin, the new MD, didn't have the same enthusiasm for the project, and so Beech virtually carried the whole thing through to completion.

In 1974, Beech accepted the car of the year award, but it was soon to become clear that the factory was doomed. North had resigned (in secret), and Abell turned up unannounced. Beech, expecting to be made Managing Director, could see the end was near and resigned, moving back to UK to retire.

Beech writes:

> "At the top levels there was just not enough sympathy for what Leyland Australia had to do to succeed, or to survive, for that matter. There was a lack of knowledge of the Australian market. There was a lack of sensitivity of what had to be done. The sands of time were running out on Leyland in Australia. We were losing opportunities. Any insight into this was prevented by the politics and infighting which were going on and are going on at the parent company. None of that was unique to Leyland. All big companies have it. But Leyland's situation meant it did not have time for such luxuries."

A remarkable man who rose from apprentice to some heady heights and shouldering a great

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responsibility for many years – “more than would be expected of one man no matter how capable he is”.

Some of his colleagues blame Beech for aiming to high, pushing people beyond their capabilities – but he did what had to be done and the car came out on time and budget. But, as we shall see, a combination of factors led to its early demise, something which must have pained Beech greatly now watching from the sidelines of suburban Longbridge.

Pictures show Beech with Roger Foy and a Mini Deluxe somewhere in country NSW; Beech showing the UK execs samples of competitor cars during their visit in 1969 (photographed in the Experimental Yard); Beech with politician Doug Anthony and MD John Martin inspecting the press shop; Beech and his achievement, the Leyland P76.

Timeline photos

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Episode 4

In our walk through the events of 1974, having had a look at David Beech, it’s now time to introduce you to the Advanced Model Group: comprising Bill Serjeantson, John Wallis, Reg Fulford, Graham Hardy, Barry Anderson, Ken Haw, Lea Garrett, Syd Ferguson, Don Imison and Ernie Jackson.

Barry Anderson and Graham Hardy were the main participants with the others in a more supervisory or support role. Many of the top level documents associated with Model B (P76) were written by Hardy and Anderson, starting with the 1968 “Product Studies (Passenger Vehicles): 1974-1978”. In this work, Hardy and Anderson sought to document the influences affecting BMC’s product policy for Australia. That is, they were trying to predict just what kind of vehicle would be marketable given the resources of the Company, Government policy, and actions of their competitors. Quite a significant task for a couple of young guys that was intended to shape the direction of Models A and B for the next 10 years and consequently, the fortunes of the company. Anderson was in charge of the mechanical development, and Hardy, the body design.

Anderson started at BMC in 1958 as a cadet engineer, going to the nearby university for his Bachelor of Engineering degree which was awarded in 1959. By the time of the Model B development in 1968, he was Experimental Engineer and by 1974, Vehicle Engineering Manager.

Anderson had no prior experience in the motor industry prior to joining BMC, although he did have an elderly Morris which probably counts, given the maintenance it must have needed. However, as Reg Fulford’s protégé, and with Fulford’s GM experience, he had good backing. Hardy came from

GM-H to BMC and so did have some direct outside experience, but as it turned out, this circumstance led to some significant problems with Model B which we'll come to in a future post.

Anderson introduced many new ideas to BMC for Model B, drawing on the best of the best principles he could identify – Macpherson strut suspension, alloy engine block, anti-dive brake geometry, to name a few. How to manage all these changes was a case of "doing what the others did", he producing a timing chart which outlined the whole development of the car – identifying which things could be done in parallel, and all coming together for Job No. 1 in January 1973. Production job #1 actually started in March 1973, two months over estimate, but given the tumultuous events of the preceding 4 years, it was a remarkably accurate prediction.

The intention of Model B was to offer the best ideas to the customer by bringing together industry standard components to minimise "reinventing the wheel". It is no surprise therefore to find that items like the steering column, transmissions, brakes, and so on were (shall we say) "extremely" similar to those fitted to competitor vehicles, they being supplied by third party outfits like Borg Warner, TRW and so on. The only real new mechanical item was the Rover all-alloy engine, and Anderson worked hard to justify its benefits, mainly on account of its light weight, and subsequent flow-on savings in weight on other components. I once asked Barry would he have changed anything, and his reply was perhaps to make the top suspension mounts a little stronger.

Now, despite the use of industry standard components, things did not work as planned all the time. Superficially these mechanical items were the same as those used by competitors, but in detail, many cost "savings" were made, the most serious of which was to cause a major problem five years after the car was released when it was found that the steering lock would jam on.

Problems began to surface in July 1973 soon after release and involved things like handbrake operation, oil starvation, steering stiffness, floor pan overheating from muffler (a major campaign), alternator output, speedometer cable, starter solenoid sealing, engine vibration from drive belt whip, dip stick graduations, and replacement of brake calliper banjo bolts – the latter being the subject of a recall campaign affecting all vehicles made before October 1973.

Anderson wasn't so concerned with these details, they were matters for development and production engineers. By the time of the launch, he was busy with P82 development.

Overall, at a high level, the mechanical design was very good and with all these desirable characteristics the car of the year award was justified especially when competitors were still offering cast iron engines and leaf spring rear suspensions. On the road, the car rode nicely and had lively performance. Mechanical durability was probably reasonable given many of the issues involved matters for which Leyland Australia were dealing with for the first time. Next week, we will look at the body design – and this is where most of the "living with the car" problems were to arise.

The picture below show Anderson (left) and Reg Fulford along with the timing chart and the mechanical components which were his responsibility.

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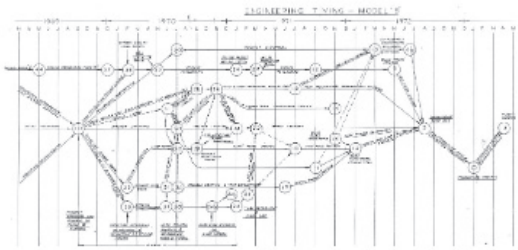
Timeline photos



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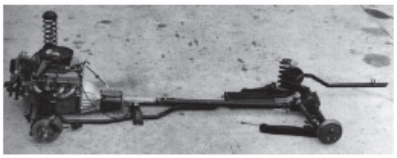

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Episode 5

Now we come to Graham Hardy. Hardy had a significantly more difficult task than Anderson. Unlike the mechanical components, there was no “industry standard” body to use, nor a Rover body unused waiting in the wings. Although the factory had some small experience in body design with the Austin 1800 utility and other detailed modifications to other UK designs, this was new ground.

As far as the body was concerned, the first item produced was a seating buck. The whole thing relied on the accommodation of five passengers with certain design targets for leg and elbow room. All else followed from there.

In the Styling Terms of Reference (10/1969), Hardy lists the following body items that were to come under his responsibility:

- Valance to Dash Assy
  Underframe Assy (floorpan)
- Body Side Assy
- Roof Panel
- Front and Rear Doors
- Bonnet
- Hinges
- Bonnet Bumpers
- Bonnet Lock
- Bonnet Release
- Bonnet Sound Blanket
- Bonnet Seal
- Bonnet Safety Catch
- Locks and Strikers
- Outside Handles
- Inside Safety Locking Device
- Door hinges
- Door Check Link
- Door Pads
- Armrests
- Door Glass
- Glass Run Channels
- Weatherstrips
- Window Regulator Mechanism

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- Trunk Hinges
- Door Checks
- Door Glass
- Glass Mechanism
- Trunk Locks
- Trunk Weatherseals
- Seat Frames Padding and Covers
- Seat Adjusting Mechanism
- Rear Seat Frames and Trim
- Facia
- Windscreen Fittings
- Windscreen Glass
- Windscreen Rubbers
- Windscreen Mouldings
- Backlight Glass
- Backlight Mouldings
- Backlight Rubbers
- Floor Mats
- Floor Carpets
- Boot Mat
- Centre Console
- Headlining
- Rear View Mirrors Interior Sun Visors
- Seat Belts
- Ash Trays
- Grille
- Badges
- Nameplates
- Bumpers
- Licence Plate
- Rear Number Plate Illumination
- Radio
- Speaker
- Handbrake Lever
- Brake and Clutch Pedals
- Petrol Tank
- Heater
- Air Conditioner
  Instruments
- Headlamps
- Stop and Tail Lamps
- Windscreen Wipers

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Can you imagine the pressure in taking on all this for a new car of dimensions never seen before at Leyland Australia?

In each of the above, certain practical and legislative requirements had to be met. For example, a clear passage was to be allowed for to accommodate the Rotodip spit from front to back and this in turn affected the position of the front facia parcel shelf and the boot lid lower opening line. The size of the boot was dictated by the requirement that the spare wheel be stowed upright. The bonnet height at the front depended on the size of the radiator.

There was one item mentioned in this document which didn't attract any attention at all until it was far too late, and that concerned the door weatherseals. The design brief calls for "constant section rubber weatherstrips to be fitted on the doors only and attached by wire clips". This went un-noticed, buried in amongst all the other detail but embodies three design faults: "constant section" means a strip, not a moulded seal, which was to bend its way around the door frame; the strip is to be fitted to the door only, with no secondary seal to the door aperture; and the attachment by clips, and not any continuous method like adhesive or a channel. Doesn't sound so serious but in combination with other design elements, was to prove disastrous.

Hardy felt that this being a large car, with large and heavy doors, some allowance had to be made for sagging of the doors in relation to the aperture. Accordingly, the door margins (the gaps between the door and the body) were set to an unusually large 5/16" instead of the usual 3/16". The door hinges were to be welded to the body and bolted to the doors. And as a touch of class, the kick plate at the bottom of the door aperture was to be made level with the carpet with no lip.

We'll discuss the significance of all these in a future post but for now, let's return to Hardy, the body engineer. With a huge amount on his plate, he would have had to be a very capable fellow and to those I've talked to, he was, almost to the point of unrelenting stubbornness. One colleague said "because he came from GM, no one would stand up to him" – except perhaps for Ian Lovegrove whose regular arguments with Hardy were legendary, sometimes finishing on the lawn outside the Experimental Building. Being more associated with the body than the mechanicals, the internal stylist Rodbergh worked "closely" with Hardy who accompanied him to Turin to "help" Michelotti with the final design.

Given the resources and budget, Beech picked his man well to carry through this exacting task but Hardy was spread too thinly. His previous work at GM wasn't at this level and he had to grow into the role, and as we've seen, a very large role at that. As we shall see, seemingly insignificant details like the door seals were to be the car's eventual undoing. That is what Burden was writing about when he wrote "Leyland fell down with the subtleties of design". It takes that second order detail to make things work in practice and not only in motor vehicle design, but for nearly every product that is put in the hands of the uncaring customer.

Next week, we will be in Feb 1974. Peter North had returned from a gruelling visit to UK and had secretly resigned, but back at the factory continued to implement last ditch efforts to solve the mounting problems of warranty costs which were threatening to bring the whole thing down around his ears.

Pictures show door margins (0.3 or 5/16"), Hardy (left) and Kjell Erikson (right), and a pictorial view of the engineering hard points.

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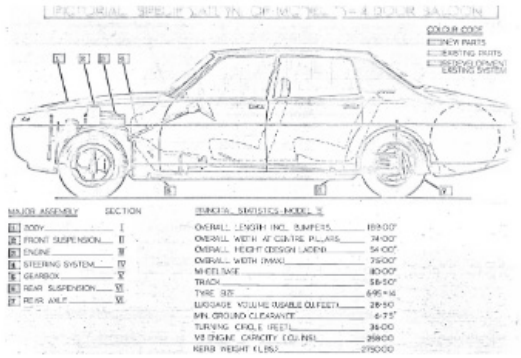
Timeline photos



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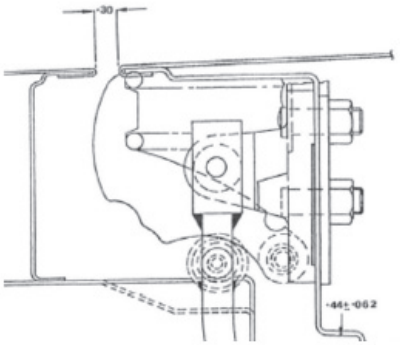

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Episode 6

Peter North had previously worked at Ford in Canada and also in Ford Australia. He was appointed Finance Director at Leyland Australia in May 1971, but had an additional role as an assistant to MD John Martin to address sales and marketing, and industrial relations, at the Waterloo factory (by this time, the official address had changed from Joynton Ave Zetland, to South Dowling St Waterloo – that is, the east gate instead of the west gate).

North engaged John Pola as Public Relations Director. Also joining at this time were John Kay and Max Hamilton – all together a very strong sales team.

On the industrial relations side of things, North took on John Engel and Peter Robson to sort out workplace relations which involved “rampart absenteeism” and multicultural issues of a diverse workforce.

When Martin retired, Peter North was appointed Managing Director (mid 1972). As part of this appointment, North stipulated to the UK management that development would start on P82, and to also give Australia a larger allocation of UK Jaguar production (the latter needed for much-needed cashflow).

After all the hoopla of the P76 launch, and the resulting unaccustomed publicity, the factory found itself unable to meet demand. But then we had a fuel crisis. Sales of large cars dropped and those of small cars rose. P82 (a small car) was nowhere near ready, and then the Industries “Assistance” Commission decided to change the rules about what was “local content”. Warranty costs on P76 were starting to hurt (more next week on this), and staff turnover (particularly in the Sheet Metal plant) was enormous.

North travelled to UK in Feb 1974 (50 years ago almost to the day) to attend a meeting of BLMC International. At this meeting, he was told that the UK parent company had decided to close all manufacturing plants outside of UK to remedy the company’s cash position resulting from the effects of the Nov 1973 UK Coal Miners strike. P82 development would stop, and as for the allocation of Jaguars – forget it. North resigned on the spot, but agreed to keep this secret and return to Australia for a few months to prepare the factory for closure.

There was an abortive attempt to engage Toyota to take over the Waterloo site for Toyota parts

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manufacture as well as P76 and Force 7, but this came to naught.

What was supposed to be a factory wind-down dragged on for months with North undertaking several major programs internally to attempt to salvage production. We'll talk about these programs later, but it must have surely irked the UK management that the supposed "close down" was not happening as fast as they expected – and they sent David Abell out later in the year to investigate.

But, before we get to Abell in June, let's stay with the events of Feb. People on the ground knew nothing of these events and decisions in UK, and so work was continuing apace on S2 (Force 7) and P82.

One of North's initiatives was to have Robson institute a change in the way the workforce was managed at the line station level. With full knowledge of the Unions, Robson went "under cover" for six weeks on the production line to find out what the problems were. As a result, a new "worker participation" policy was implemented on the Marina trim line as a trial. Line workers were moved around from time to time to gain experience in different jobs in preparation for them to undertake simple decisions about the work - decisions that would have normally been made by a foreman. Some workers viewed these changes of duties as a punishment, as if they were not doing their job well and had to be moved. At a supervisory level, foremen saw their power being diluted and were naturally suspicious. This program was abandoned, but as we shall see later, resurrected in quite a different form by Ron Moss. Rather unfairly, it became to be believed that North had sent spies into the production line workforce and even today, some middle managers believe this to have been the case whereas in fact the Unions supported the move and the purpose was not to "spy" so as to lay blame, but to improve worker engagement

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North died just a few years ago but only spoke once (in 2002) about his work at BLMCA. I once wrote to him in about 2017 or so to see if he would contribute something to the Chronicles book, but he didn't want to know

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Episode 7

We come now to the issue of warranty costs. Even though Beech had got approval to proceed with the Model B programme in Nov 1969, UK were still analysing the situation to make sure this was all going to create a profit. Regular visits and questions from UK accountants irked Beech considerably. With regard to warranty costs, Beech's estimate of costs per vehicle for P76 was, in his opinion, a conservative $40 per vehicle.

This figure was questioned by a UK cost accountant as being too low. Beech, in response, said that $40 was actually higher than that for an Austin 1800, and that the conventional gearbox and back axle were warranted by Borg Warner, and so his estimate was too high, if anything. Beech was fuming, and wrote to Jack Plane "in confidence" complaining:

> "I come now to the latest barrage of queries and comment, emanating either from Central Finance or Overseas Division, because I do not recognise names. The attached list covers the latest batch of questions. These are quite ridiculous, and the amount of detail work necessary to provide the answers wastes the time and effort of what is already an overloaded organisation in Australia."

Beech goes on to list the "stupid" questions being asked.

Now the UK people had the weight of considerable experience behind them, and especially for the introduction of a completely new vehicle (e.g. ADO15) and even developments thereof (ADO16 and ADO17). The Australian engineering team only had experience in modifications to UK designs to suit Australian conditions and these modifications were improvements on UK designs which had borne the brunt of carving through virgin territory.

In Australia, by 1974, it was evident that warranty costs for P76 (now running at $128 per vehicle) were far in excess of the initial $40 and North asked local accountant Michael Friend to analyse the situation so that some prediction could be made as to when and if these costs would come down.

Friend was an accountant, not an engineer. But, he had the thought to base his prediction on the most recently released new model of which the factory had a few years of warranty history: the Marina range. Friend discovered that with Marina, warranty costs started at $70 per car, and fell to $55 during the second six months of production, and then settled out to $52 per car. On the basis of percentages from Marina applied to P76, he predicted that $128 would fall to $102, and then to $97.

Still a far cry from $40 so it is easy to see that there needed to be some drastic action taken here before the UK people noticed. Most of the warranty items concerned the body. Water and dust leaks being the main culprits, and these arising from body manufacture in combination with those design faults we discussed previously (door margins, the single strip door seal and kick plates). North was to form an investigative task force to examine these problems and we'll come to this in a future post.

For now, we can see the obvious flaw in Michael Friend's analysis. Marina (with a linage going back to Morris Minor) is a very different proposition than a ground-up new model P76 designed by a small team of young blokes on their first major assignment with only an occasional and superficial "look over the shoulder" from UK engineers. Friend made no allowance for this and, in my view, provided

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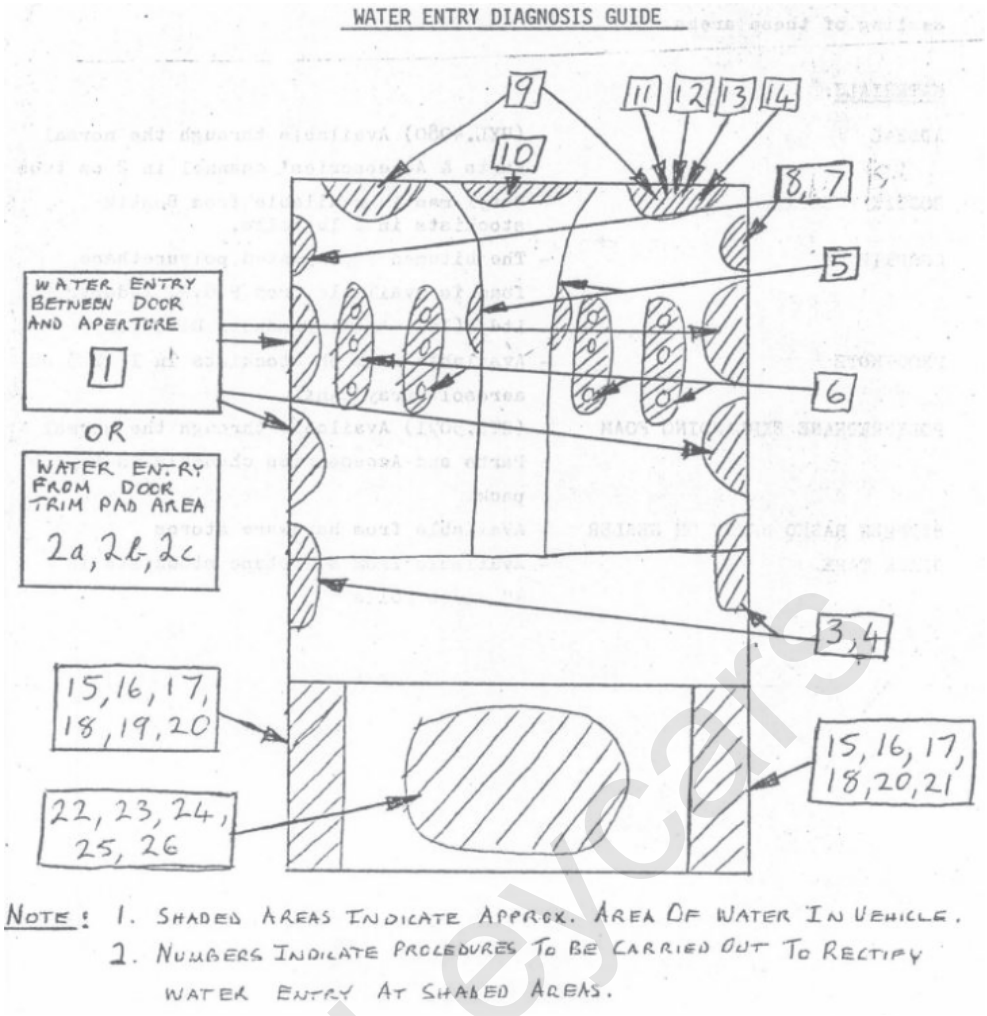
North with figures that were just unattainable. We'll see later that Abell also had cause to question these predictions.



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Episode 8

We will return to Peter North's efforts to save the factory next week, but for now, let's have a look at the Rover involvement in the P76. As we all know, the aluminium alloy V8 is one of the most outstanding features of the car – but there was a potential problem. Did the P76 version of this engine fall under the Rover agreement with GM? Local engineer Ken Haw read the Agreement, and found that there was some IP attached to three Buick parts numbers of engine assemblies – referring to the 3.5L engine used by Buick. Haw concluded that

1. Since the P76 engine was 4.4L, then it could not be considered to be one of those part numbers.
2. No Buick made parts are used in the P76 engine but he concedes that the camshaft may be considered to be of a Buick design. But, this components is the same as that used by Rover in their engine and is procured from the same source in US (not Buick or GM).
3. The 4.4L Australian engine has the following items common with the Rover 3.6: camshaft, camshaft drive gears, hydraulic tappets, and valve springs and retainers. Haw concludes that

all these are common industry components and doubtful whether they would be considered part of the Agreement.

4. The major components of cylinder block, cylinder head, crankshaft, connecting rods are different from the Rover engine and, whilst the initial design on some of these was carried out by Rover, the final design was completed in Australia and released for Australian manufacture.
5. The inlet manifold and carburetter system were designed in Australia exclusively.
6. The 4.4L engine is not interchangeable with the Rover 3.5 although it is conceded that the 4.4 does owe it parentage to the original Buick design.
7. Liaison took place between Leyland Australia dn Rover on the formative stages of the use of the 4.4L engine, but design control is from Sydney on this engine. Rover were kept informed of matters on the design and validation of the engine during its development, but Rover have no plans that are known to make the 4.4L engine.
8. The aluminium, castings on the 4.4L engine are at present supplied by Birmal in UK, the same source as Rover for their 3.5L engine. Cast Alloy in Adelaid are tolling up to make the castings and have not used any data from Birmal.

From the above, Haw concluded that the 4.4L engine used in P76 owes its parentage to the original Buick engine and also the Rover engine, but it is not the same engine and the major components are not interchangeable. Thus, it is doubtful that the engine is part of the GM-Rover Agreement.

So there we have it folks – it sounds a bit thin to me actually. Picture shows Peter North admiring the P76 power train

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Episode 9

In the last week of Feb 1974, North (whom we remember was told to start winding things down in preparation for the closure of the Zetland/Waterloo plant) implemented a major restructuring of the Product Development Department. New responsibilities were as follows:

Fulford – Chief Product Engineer
Anderson – Vehicle Engineering Manager
Hardy – Body Engineering Manager
Haw – Power Unit Engineer
Rogers – Product Engineering Services Manager
Nicolson – Vehicle Engineering Manager
Brothers – Product Planning Manager
And then "also, Mr M Cassarchis, Styling Manager, will now report directly to Mr Beech".

Now, to those in UK, these names mean very little, but they were a promotion for all the local lads. Of particular significance is that the Company stylist Cassarchis (previously Romand Rodbergh) no longer reported to Hardy, but instead had a direct line to the "top" and reported only to Beech (Director of Product Development and Manufacturing).

Styling had at last come of age. No longer was the stylist a service provider to the Engineers, but now was on equal footing to them. Far too late to make any difference to the P76 styling debacle, but explains why pictures of P82 internal clay models (the first full size clay models ever produced by the local factory) show Cassarchis at the wheel and competing head on with models prepared by Michelotti labouring away in Turin (without any "help" this time).

North stated that the "restructuring is designed to sharpen our focus on key responsibility areas and to allow more effective utlisat6ion of skilled professional and technical resources.

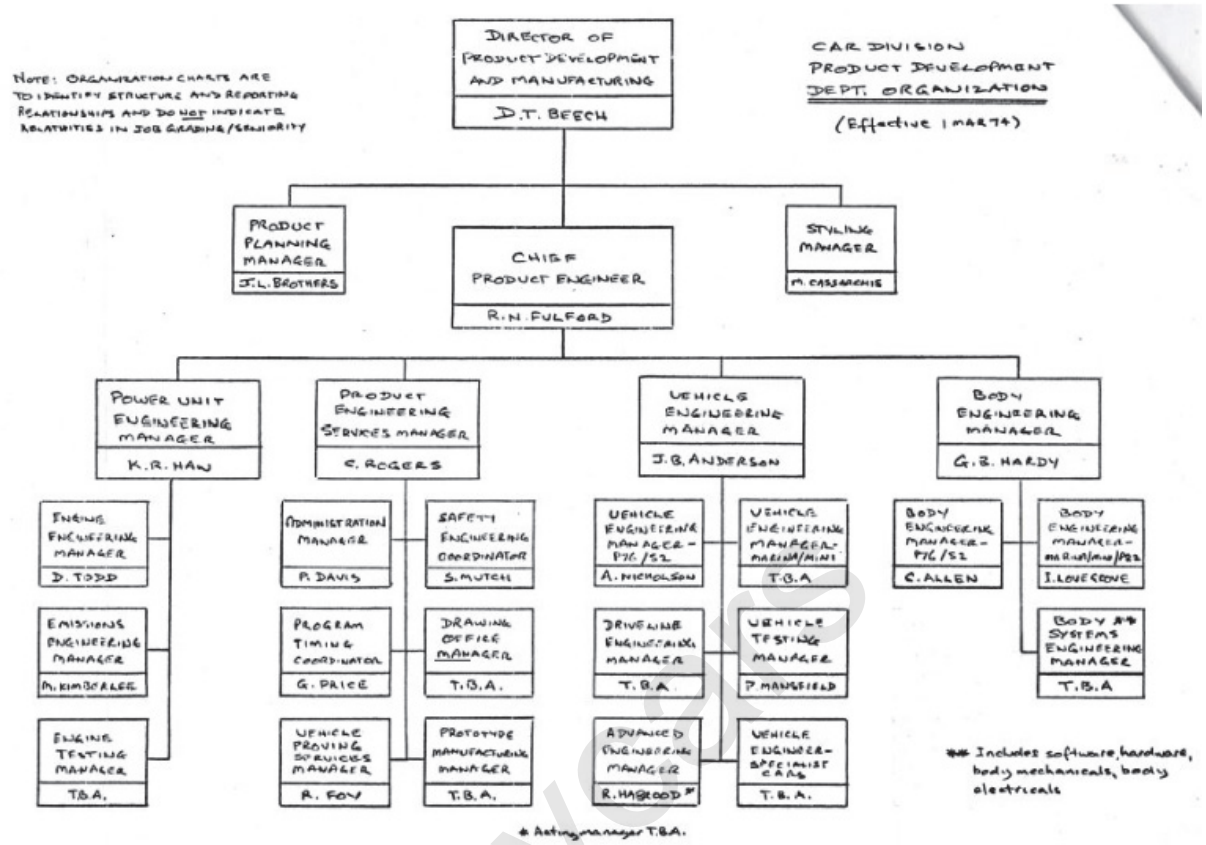
A major shakeup of jobs was nothing new – the previous year, "Change agent" Robson (whom we met a short time ago "under cover" on the assembly line) shuffled key managers around with the result that Ron Moss (a local presently acting as Planning Engineer in the sheet metal and body plant) found himself in charge of the Unit Plant (the "Austin" building – egad) as Production Service Manager to increase V8 engine production – work that Moss had no experience in whatsoever. A new Body Planning Engineer (Les Turner) was appointed to cover SMBD to deal with the further production and related issues cold. When I asked Ron about this he said that previous managers in the Unit Plant were all UK men – and he couldn't help notice that conversation always stopped when he entered a managers meeting! This clash of Austin and Morris cultures was, and had been there at the factory ever since the merger back in the mid-fifties and, in my opinion, was one of the major underlying causes of the plant closure.

But back to 1974, here we have North shaking things up at mid manager level in a desperate attempt to bring down those warranty costs and to make P76 look like it had a future. As well, work was going full steam ahead on P82 and Force 7 – not the actions of an MD who was supposed to be preparing the plant to closure.

Next week, we'll have a look at two major internal investigations implemented by North – both of

Leyland

which were to do with the P76 body problems. The new structure is shown below, but when I showed this chart to Peter Davis (who now found himself apparently reporting to Chris Rogers), Peter said he'd never heard of such a thing



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Episode 10

While Peter North was desperately trying anything to keep things afloat instead of preparing to close the place down, Engineering was going full steam ahead on the introduction of the S2 (Force 7), P82, and, the Series II P76. Most of the suggestions for P76 MKII were to come from the Service Department. This is when Prescott lists the "living with the car" issues that he and his Department had to address on a daily basis. Apart from the multitude of niggling problems, there were quite a few major engineering changes suggested:

1. Fit the V6 engine
2. Fit expansion tank to cooling system
3. Reduce starter motor noise level
4. Firm up the suspension front and rear to reduce bottoming
5. Remove ugly grille off rear quarters and re-style
6. Eliminate black matt paint or improve appearance
7. Improve appearance around screen and rearlight
8. More protection for rear dog leg stone guard
9. Revise front and rear panels for easier smash repair
10. Incorporate new jigging to improve dust and water sealing

11. Incorporate rub moulding strip on door centre line
12. Reposition bonnet release and hold up security catch
13. Major revision of ventilation system with more total air entry
14. Face vents too low and drivers vent obstructed by steering wheel pad
15. Improve demisting performance
16. Provide independent cold air supply (door vent windows)
17. Increase height and rake of front seats to eliminate “sliding down”
18. Increase height and rake of rear seat cushion to eliminate the intolerable claustrophobic feeling and elevate vision
19. Refine and improve wiper operation
20. Reduce stillness in operation of window winders
21. Complete redesign of facia (has too many decorative edges leading to ill fitting panels)
22. Incorporate stalk type control for wipers and washers, headlamp dip and flashers
23. Provide thiner steering wheel
24. Improve feel and action of light switch
25. Detail redesign to improve fit and appear4ance of ABC post cover trims, flange finishers and carpet edgings
26. Front seat belt talks too long
27. Head restraints to be made smaller and lean forward to lessen visible effect on rear passengers
28. Overcome excessive wind noises
29. Redesign sun visors
30. Get new headlamps
31. Revise layout of main electrical components and leads to obviate unnecessary long lengths of main current load leads.
32. Redesign boot locking system.
33. Improve clutch effort on manual cars
34. Redesign wiper system completely
35. Rear axle 2.9 too high

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In other words, more or less give attention to detail that should have been put in in the first place. The revision to P76 was to be a “facelift”, but it was becoming obvious that it would have to be a major one.

The narrow track problem was only identified somewhat late in the day when the full-sized fibreglass body was received from Pressed Steel and the wheels then put into position at styling. Prior to this, the only visual clue as to the final appearance of the car were photographs of the quarter scale models taken in Turin. This was to be rectified in the facelift model.

A revised MKII body style was designed – but there is some confusion about who came up with this. In the pictures below, the renderings were made by David Bentley (who had left the company in 1968 upon his return from his overseas stint), but the actual model mockup was made by Cassarchis – too similar to be a coincidence in my view. At one time, Bentley was accused of spying on the Waterloo studio (which he denies emphatically), while on the other hand, Bentley’s work was published in the Feb 1974 issue to Wheels, and that Cassarchis would have seen these as would have anyone else. The photos of Cassarchis’s model are not dated but going on what other cars are shown in the studio at the same time, clearly late 1973 or early 1974.

All this talk about P76 MKI occupied the discussion of Feb 1974 and next month, North formed up a

dust investigation task force and also a body dimensional task force. This doesn't sound like a factory preparing to wind down, but it is obvious now that Beech knew what was coming (as an old Longbridge man, he would have had connections in high places), he resigning about this time, clearly unwilling to be part of the car's demise.

Timeline photos

Timeline photos

Timeline photos

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Episode 11

According to the Rover documentation, a decision had been made to market the P76 in UK and the Rover Sales, Service and Engineering Departments were asked to make an evaluation of the two cars sent to them from Sydney.

For the Rover UK service Department, the task was given to Maurice Wyatt, who wrote an internal memo to Alf Head, which was subsequently (and somewhat mistakenly) sent to Prescott in Sydney. Since Wyatt had not intended his report to be read by the Australians, he was probably more honest in his feelings than he might have been. However, it is very interesting to compare Wyatt's list with those of the local Service Department of the previous post.

1. Brake pipe clipping could be improved
2. Brake pipes front and read exposed to salt corrosion
3. Brake line connection at the rear of the car is too near the exhaust
4. No covers fitted to bleed screws and rear bleed screws are inclined upwards
5. Fuel lines appear to be too close together and would be better made from plastic
6. Auto transmission pipes solidly connected to radiator block
7. No differential drain plug fitted
8. Engine manifold bolts and nuts retained by spring washers and not lock tabs
9. Bell housing stiffening not approved by Rover Engineering due to possibility of creating oil leak at sump joint
10. Open ended body support frames will collect salt and mud
11. Sill box sections require better external protection
12. Petrol tank filler vulnerable to corrosion and fouling from road debris thrown up by road wheel
13. Throttle cable and BW pressure modulation cable picks up on two levers from cross shaft which lead to incorrect settings when bearings wear
14. HT/LT cables unsupported over a considerable length.
15. Main battery solenoid appears to foul the cylinder block core plug boss and possible fire risk
16. Position of battery vulnerable to frontal impact and adjacent fuel lines
17. Bonnet safety catch would appear to be fitted to wrong side of the car
18. Speed cable passes very lose to exhaust manifold
19. Front door sealing and roof window channeling allows water to be directed on to the courtesy

Leyears

light switches and check strap.
20. Door sealing rubbers are clipped and not fixed by adhesive
21. General condition of door lock and locking mechanism noisy and harsh
22. Boot lock control requires escutcheon
23. Rear lamp wiring requires tidying and covering
24. Rear boot lid required proper engineered stay
25. Secondary ride characteristics at low speed were harsh
26. General noise levels of starter motor, exhaust and fan unacceptable
27. Brake judder evident
28. Ventilation not as good as expected
29. Lights on both main beam and dip were not adequate
30. Wiper mechanism noisy and rough
31. Quality of facia switches very poor
32. Interior light inadequate and fixing appeared to be cheap, the covering falling off the car on a number of occasions
33. Horn tone not does match the image of a highly priced car
34. General wind noise level very poor
35. Fit of panel to panel and general finish extremely poor
36. High speed shake from rear
37. Quality of seats and general seating position very poor
38. Fixed seat belt, not inertia reel

Wyatt finishes his list with the comment “Any comment on the styling of the car must of course be strictly subjective, and I personally feel that it is a most unattractively styled car, more influenced by American style than the European. The colour scheme also on this particular car was most unacceptable to me.”
Now, Wyatt wrote this for internal use, but Head had passed it on to Sydney, with an apologetic follow up saying that the comments were made upon the expectation that in UK, the car would be a luxury class. Sydney accepted the comments in good faith and the local service partment furnished a lengthy rejoinder.

Similarities in the two opinions (Rover and the local company) are worthy of notice. In particular, comments about water and dust sealing and interior ventilation – issues which will occupy us for the next few posts.

In later years, the shoe would be on the other foot when the Australians sent back a list of criticisms of the SD1 to Wyatt.

Picture below shows one of the UK cars at a photographic session. These photos taken by Roger Foy standing behind the official photographers.

Leyears

Timeline photos

Timeline photos

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Episode 12

As often stated in these posts, dust and water were the main source of warranty claims in relation to P76 during 1973 and a water and dust sealing manual was developed by the Service Department and issued to dealers in early 1974. A picture from this manual was shown earlier in this series. The problem was that in order to fix a customer's car, the whole interior had to be stripped out and reinstalled with the exception of the head lining and the dashboard. Clearly, patching up the problem with fixes like this was not a solution, and so North (who we remember was supposed to be preparing for the factory closing) set up a Dust Investigation Team to learn more about what was happening. This team was somewhat complementary to the Body Dimensional Task Force which we will come to in a later post. The Dust Investigation Team comprised the following personnel:

Bruce Elson (Service)
Jim Forbes (Product Quality)
Don Boye (Product Engineering)
P Hicks (Proving)
Graham Hardy (Product Engineering).

It was decided that the team would travel to Mildura (in country Victoria on the border with NSW) and examine two vehicles. The purpose of the visit was "to look into complaints of severe dust leaks in the Mildura area which has resulted in the re-purchase of one P76 and the cancellation of two firm orders, plus numerous customer complaints".

On the morning of the 26th March, 1974, the team members (who had driven two current production vehicles (one in standard form, the other with various seal modifications) to Mildura) and inspected a car owned by Mr AB Smith, and another (which had been re-purchased) at Syd Mills Motors.

In Mr Smiths car, the door seals had taken on a permanent set and only just touching the door aperture and not exerting any pressure on it.

In the afternoon of that day, the two factory cars were taken out on to the same dirt roads travelled by Smith and the team found that the standard car leaked very badly, the problem being both the

Leyland

seals and the metal finish condition at the joins of the A,B,C and D posts in the sill panel. The modified car (with a new hard-backed type door seal on one side, and a Marina seal on the other) leaked badly with the new seal design, accentuated by poor metal finish. The Marina seal fared better. The newly designed seal was replaced with a Chrysler type bulb seal and this gave excellent sealing.
The next day, the team visited Mr Albert Povey's Sept 1973 build. Mr Povey only had the car for 4 months and had visited a Ford dealer with the view to trading it in on a new Ford. The team found that "the inside, particularly the rear seat, was literally covered in a layer of dust and the boot looked as if though someone had tipped a large bucket of dust in it. Dust was coming through the seal panel, seat runner holes, through the window winder regulator handles from the door skins, up the door snipper buttons and door handles and to the inside of the drop glasses. The metal finish in the boot area where the seal lay was "disgusting". Dust was also seen coming up from the handbrake cable, tread plates, and the A post foot layer vents.

This car was cleaned, and the Chrysler type door seals were fitted and attached with plastibond, and all other points of entry taped up. Another run on a dirt road showed a marked improvement, but still some problems with dust coming in from the rear lamp apertures and an ill-fitting door.

We remember that customers also complained of poor ventilation in the P76 and subsequent experiments showed that the interior was under negative pressure, and so dust was just being sucked into the interior, even with the windows open. This, with the poor metal finish at the joins and poor door seal design were the cause of the problem.

A series of recommendations were made including the adoption of the Chrysler type of door seal in conjunction with improved metal finishing.

The team also canvassed the general opinion of these country owners and their findings are shown below. Regretfully the photos from the Mildura visit are not on file, only the written part of the report.

The report is signed by Elson, Forbes, Boye and Hicks. But wait a minute, what about Hardy? Despite being told to attend, he refused and didn't turn up! We shall see that Hardy (whom we remember was responsible for body design) was then put in charge of the Body Dimensional Task force to sort out the problems coming from the Sheet Metal and Body shop.

Rather frustratingly, I worked with Jim Forbes for some five years in the early 1980s but he never mentioned this activity, and I at the time, did not know to ask!

Leycars

GENERAL OWNER AND PROSPECTIVE BUYER REACTIONS.

1. All owners to whom we spoke complained of one basic problem - too many little things continually going wrong with the car and lack of detail in metal finish and paint.
2. Dust and water entry due to poor metal finish and door seals which are next to useless due to their taking a permanent set.
3. Suspension not good enough for country conditions, e.g. bottoms very badly.
4. Inadequate ventilation, particularly for an area such as Mildura. On Deluxe vehicles without heater control taps it is even worse due to the constant source of hot water in the heater. Another observation we made was that there appears to be a depression within the cabin even with the windows open.
5. Engine overheating - V8 and 6 cylinder. We encountered this very problem ourselves on both the 6 cylinder and 8 cylinder vehicle which we used for this exercise.
6. Body margins considered excessive and irregular when compared with opposition vehicles, a point which prospective buyers particularly notice.

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Episode 13

In our last episode, Elson and his team had travelled to Mildura and came back with a scathing assessment of the P76 body structure – dust literally pouring in at every opening, and totally ineffective door seals. It was plainly obvious that the body was not being manufactured properly and so North convened a Body Dimensional Task Force to go into the Sheet Metal and Body Division to find out what was going wrong. Who better to lead the team than the chief body designer, Graham Hardy? Now folks, I believe this was a mistake. Hardy's reputation was on the line here and he wasn't going to admit that perhaps some aspects of the body design were less than ideal. North probably should have picked someone more independent to have a look at the situation but Hardy probably insisted on being put in charge of this. The fox was guarding the hen house.

The Body Dimensional Task Force produced two reports, and the first one came out in early April 1974. Recipients were W. Beresford, E. Aldred, D Jackson, J. Watson, and J. Dodson.

The overall round of objectives were:
1. Locate the checking media (red masters, online aperture gauges and checking fixtures)
2. Check over the checking media and make any rectifications.
3. Study the sub-assembly and final assembly sequences to determine the consistency of build, and accuracy of build relative to the design intent (that is, are things being made to the drawing).

Their April observations were as follows:

1. Door aperture checking fixtures could not be fitted into the body side panel red masters without some adjustments.
2. Door aperture checking fixtures when fitted into successive bodies on the line show incorrect and inconsistent fits.
3. No facility exists on the door aperture checking fixtures for checking of door hinge locations.
4. Some panels (such as header panels) that are reliant on full press blow or a degree of overbend in the press, in fact will not confirm to the master model without the aid of clamps. In some cases there are some very rigid panels which do not conform to model and which dominate an assembly causing spring back out of the assembly jig.
5. Some assembly jigs are not capable of producing panel assemblies which are consistent, let alone correct.
6. In some instances, the key mounting points for "hang on" items are not jigged at all. A prime example being the rear quarter inner to wheelarch on S2 in which no control is held over the glass runner mounting holes. These holes must be held in position to ensure that the correct positioning of glass sliding planes and fore-aft line up is achievable.
7. At the station where the roller welding of roof and windscreen panel to drip rail is done, a support is required to prevent distortion of the top front corner of the door opening. The welding of the joggled joint of roof o windscreen pillar panel which ultimately strengthens the area considerably is done at a later stage, after the damage has been done.
8. No check is ever made of the door assemblies because doors which fit the fixture will not fit the car and doors out of the assembly fixtures will not fit the checking fixtures.
9. The facility of storage and use of the valuable checking media (hardwood metal cube, red and blue masters, checking fixtures and master model of all panels) is virtually non-existent and can only be described as disgraceful.

It is interesting to note that it is these master jigs are the baseline to which everything has to be made. Relation to the drawings is described as "academic" only.

The report was examined by Tom Warner and Production Engineering managers who made a lengthy rejoinder. Typical of their comments was:

"Any talk of overbend in Pressings for auto bodies is ill informed. The fundamental principal is to design strength into the Panel. Full Press Blow talk is a Red Herring. Header Panels we certainly know well, and on Rear Header Panel 4 Door it was left to Production Engineering to add Beads, Ribs and Flanges to this component, in order to provide a stiff panel. This was a nightmare item that necessitated re-kellering the major form die 3 times to provide overbend necessary to achieve correct shape - never again! I hope." - in other words, Hardy, you don't know what you're talking about.

Surely the checking jigs and the masters must have been compatible at some stage, but evidently their storage and use caused them to be knocked about and out of alignment. But it was now obvious that the masters and the checking media were not being used. So where were they?

Production Engineering furnished an answer:

"To come back to storage , a small area was allocated in the old Paint Machine in PT. & F. A. 2. This has now disappeared in the needs of production . An area was then allocated in Forsythes Stores, but this is too far away and inconvenient. Models are brought into the factory , used, and then as it is too

Leycars

difficult to return are left on the road or other outside areas , where deterioration sets in. When the 2 cubed models arrived from U. K. they were transported in air conditioned container so we tried to get them stored in the Styling area , but this was not acceptable to Product Engineering. They are now located in the old PT. & F.A. 2 Paint Machine , and there is no doubt that they can move with time."

There was some talk of putting the masters and checking media in an unused press pit, but this didn't work out either. In the end, they were left outside on the grass in the weather as the attached photos show. These photos were taken by Roger Foy with his Leica camera that he got for his 21st birthday. Fulford (Product Engineering) knew Foy had a decent camera and told him to get over to the outside area of SM&BD pronto (the same day as the date of the report in fact) and take photos as "evidence". he promptly sent these to Beech commenting that "These are some photos taken of checking media storage as referenced in the GBH report. Photos were taken this afternoon.

Beech read this report and asked his production chiefs to (in more modern parlance - meaningful to Australian readers) "please explain".

More was to come later in the year once Hardy and his team had finished inspecting the body assembly and build – and what they saw there didn't make them all too pleased either.


Timeline photos


Timeline photos


Timeline photos


Timeline photos


Timeline photos

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Episode 14

While the Body Dimensional Task Force was busy with P76 production in the Sheet Metal and Body Division, Over in Engineering, the focus was on the two door coupe, internally referred to as "S2", and then to be marketed as Force 7. The intended release date was to be in June, but in April, the front end moulding was still giving problems. This part was made by an outside supplier, and back in Feb, the machine had broken down but had now been repaired.

On the 3rd April, a meeting was held to discuss what parts were still without 1st-off samples, or less than 159 car sets in stock (that representing the initial 8 weeks production).

24 more front end mouldings had come in from Melbourne where a temporary fix to the sinking areas had been made in the form of a metal stiffener, making a total of 320 units in stock. In reading through all the minutes of these meetings, I estimate some 800 front end mouldings had been made to this point, the earlier ones being unsuitable for fitment due to buckling. 50 steering wheels had been received from the supplier with more to come later in the month. 30 sets of rear lamps, plus another 125 to come from Melbourne. The front bumper bars were a problem. During heat curing of the black epoxy coating, the colour deviated from the sample originally supplied. 150 air extractor

vents had just been delivered (where are they now you wonder?), 200 windscreen mouldings, but the instrument cluster was 8-9 weeks away. Tread plate tooling was under way with new shape (lip instead of flat).
Road proving of pre-production vehicles and rough road durability testing was currently in progress. By the 5th April, the program called for 78 vehicles to be completed, but only 14 had been produced. Interestingly, Beech reiterated that "all effort be extended to continue PTFA build (that is, CAB), even with shortages, such that body and water leaks and seal problems can be determined and solved without causing later problems."

The S2 committee was meeting weekly at this stage, with the minutes being circulated to all department heads and also Peter North.

In next week's meeting (10th April), the minutes open with the statement that no comment on purchased items could be made because no one from purchasing had turned up to the meeting!. The minuted action was "Purchasing requested to note the importance of these regular weekly meetings for progress review of new models to ensure adequate communications and maintenance of timing objectives".

At this meeting, several "build stoppers"
1. Front nose moulding – design acceptability, vehicle fixing and paint.
2. Front door and rear quarter glass operation – design acceptability (sealing) and vehicle assembly.
3. Rear Door – assembly fitment.
4. Rear quarter Trim – design acceptability and vehicle assembly.
Beech directed that the following personnel would immediately concentrate on all problems which require resolution to achieve manufacturing sign-off of vehicle. (those people being Allen, Mortimer, Leu and Crothers).

So, here we are in April, the owner's manuals have been printed with the introduction date showing as June 1974, and the committee is still arguing about "design acceptability"!!

Next week, we'll see how the above matters progressed.
Remember, all this activity was occurring with North knowing that the place was doomed, but at this point, no one else knew – except perhaps Beech, who along with North, was frantically trying to keep things on track in case a positive result on problems for both cars, S2 and saloon, would save the situation.

Picture below show some of the S2 models at outback testing, with a trial front end moulding, and in the experimental yard (in colour). The colour picture has some personal meaning to me if only because in later years, I would routinely park my car next to that post with the yellow stripes not realising what had gone before.

Leyears

Timeline photos

Timeline photos

Timeline photos

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Episode 15

This week, 50 years ago, there was a surprise development. David Beech resigned but agreed to stay on until the end of May. In fact, at about this time, many of the "old guard" appeared to have moved on: Serjeantson and Wilkins to name just a couple more. It's obvious that word had leaked out to those with the right contacts that the place was to close, and with that, there didn't seem to be much point in sticking around. Beech wrote to John Barber in UK advising of his decision and it would be terrific if this letter turned up since no doubt some of his feelings at the time would have been put in writing.

The main focus of activities was S2, with weekly meetings ("Timing Meetings") and as of 17th April, the situation was:

- 200 steering wheels now in stock, but there was a problem with future supply since the metal spiders supplied to Uniroyal, who then covered the wheel, developed some problem which had to be investigated.
- Rear side lamps were down at 70 in stock with 125 sets due by the end of the week ex-Melbourne.
  The front end moulding showed 40 acceptable ones in stock but 400 from the latest tool run yet to be inspected.
- Front bumper bars 78 in stock with 120 more to come ex-Melbourne.
- Trim board assy: Woodgrain finish now deleted and coloured items now available. The supplier can manage 20 per day.
- Decorative stripes: Black available, gold to come by the end of April.
- Inertia seat belts – a running change to be made.
- Front windscreen moulding: tooling still in progress so reworked saloon items to be used initially.

The supply department reported that "the current supply industry requires considerable progressing pressure to ensure we obtain our portion of the total industry capacity and additional effort particularly in Melbourne and possible even with our suppliers' sub-contractors is necessary." Design and manufacturing problems were reported as having no solutions yet available and so some new people were brought in with Frank Tenish to replace Dolf Leu and Norm Humphries to replace Mortimer. Beech directed that these people work full-time in working on the solutions to these problems (front end mouldings, door glass, and so on).

Leycars

With the front end moulding, trials were still underway with the addition of gussets and changes to radii and thickening of the top section to reduce buckling. The % of glass fil was still being investigated by the Central Laboratory and that representatives from Quality Control were to attend Elmaco (the supplier) and observe.

As of 12th April, the production run called for 122 complete vehicles to be completed, but only 9 were finished. 369 were planned for the end of the month. Clearly an impossibility.
But, you ask, what about the Advanced Model Group? All the above problems were the province of Product and Production Engineering departments for preparation of the S2 for volume manufacture. Meanwhile, the AMG were preparing for the MKII P76 (of which more is to be said next week) and also the upcoming P82 with the V6 engine. Full steam ahead for those who oblivious to more lofty decisions UK while bailing out for those in the know.
This week's pictures show Rodbergh's initial sketch for the S2, along with a photo of the final product. The captions were written in by Rodbergh himself (he had left the company a few years ago on his way back from Turin, but obviously still had connections and was moved to comment on what he saw).

Timeline photos

Timeline photos

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Episode 16

In 24th April's S2 Timing Meeting, it seems something had been settled upon in relation to the front end moulding with a press tool required to be produced for a bracket to support the part. Experimental were to make up something to cover the initial production requirements while the tool was made.

The supplier of the front and rear bumper bars was still having trouble making the corner pieces and more problems in fitting the front bumper to the car.

Various pieces of trim were still without first off samples and the Committee Chaiman (Beech) directed that "company representation" should be made in person to the various suppliers in Melbourne (listed as Kennon, Hella, Silcraft) which were currently affecting the supply situation and causing production delays. Chairman requests a full report re progress of these components by the next meeting.

Since there were no detailed solutions available for the major problem areas, more changes to

personnel with G Lindsay and S Bryant added to the previous team. Frank Tenish to analyse all aspects of assembly procedure for A, C and D track and to investigate why vehicle trimming is proving to be so extensive.
More changes to the front end moulding (addition of gussets, changes to radii and chnges in thickness of top section) to be made before the next production run of 6th May. To avoid buckling in the paint oven, the initial production of front end moulding to be paint in air dry enamel.

The rear drop side glass problems are still not resolved – detailed report for next meeting.

Switches and glovebox are now to be finished by tool etching. Initial build vehicles to use P76 woodgrain door facia and be changed prior to release.

Product Design were requested to analyse a new scheme of hinges for taildoor to allow painting to the component fully fitted to the body – since at present only the trailing edge of the taildoor cannot be painted on the vehicle.

Several reworks to items for trimming of the rear compartment needed because of they causing bottlenecks in the installation sequence.

The deck in D track requires extension to facilitate additional stations.

All this was going on with P76, Marina and Mini production full swing in the background and the body dimensional task force now analysing the assembly procedures in SMBD. No wonder Beech was feeling the pressure – with rumours about closing up, North breathing down his neck, service complaining loudly about the problems, and the Advanced Model Group and Styling full steam ahead on P82 and MKII P76. He was certainly earning his salary.
Photos show a couple of images from the proposed advertising material, and a nice shot of Mark Cassarchis in the styling studio with a Force 7 and a Marina.

Leyears


Timeline photos


Timeline photos


Timeline photos

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Episode 17

It's late April/early May 50 years ago in 1974, and if you've just joined us, we are taking a week by week journey through the events leading up to the eventual closure of the Waterloo factory.

Various task forces were looking at P76 body problems, and the two door S2 (marketed as Force 7) was getting ready for production and release in June – this looking increasingly unlikely given the

number of unresolved problems as mentioned in previous posts.

With P76 saloon, marketing proposed the following immediate alterations to the model lineup.
• Air condition to be omitted on Grade 4 with subsequent reduction in retail price by $430.
• Seat belt retractors to be standard equipment on Grade 4.
• Face level air vents to be made standard equipment on Grade 1 (in line with major competitors).
• Drip rail moulding to be omitted on Grade 1.

Some suggestions for MKII specifications from Sales and Marketing:
• Power windows and power seats to be available on the first face lift.
• Development of a "lighting group" to include reading lights, map light, boot light, glove box light, courtesy lights in front and rear arm rests (door actuated), ignition key light incorporating time delay, door ajar light to replace brake fail light.
• Bright metal door upper window surround and door upper mouldings.
• Installation of quartz halogen headlamps in lieu of standard.
• Development of a large sized ash tray with optimum passenger accessibility and cigar lighter incorporated in console for use by rear passengers.
• Stowage pockets in rear of front seat squabs.
• Drink glass holders in slide incorporated in rear of console.
• Electrically heated rear window.
• Radio aerial embedded in the windscreen.
• Prismatic inside rear view mirror as standard on Grades 3 and 4, optional on 1 and 2.
• Tool package stowage system.
• Right hand outside remote control rear view mirror.
• Styling of front and rear bumper over riders.
• Trip odometer as standard equipment on Grade 4, optional on others.
• Self seeking radio.
• Full wheel arch moulding as standard equipment on Grade 2.
• Styling and development of gun metal coloured interior hardware in place of bright metal.
• Styling of P76 and model names for incorporation on left hand side of dash panel.

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Clearly Sales thought that the occupants of the saloon were vision-impaired chain-smoking alcoholics who required every courtesy and facility at no regard to cost.

Barry Anderson made a response to the above identifying those that were feasible and those that were not. For example, a self-seeking radio was not a goer since no one else was offering one; and as for the wheel arches, he writes "This is not considered suitable by Styling as it would over-accentuate an already prominent feature of the vehicle."

But then came the costings. The facelifted, or MKII, P76 was scheduled for June 1975. $300,000 was allocated – far lower than the $1M envisaged by Barry Anderson back in January when he was asked to respond to the suggestions from Prescott (Service) who listed 35 items addressing the "living with the car" issues – most of these being of a mechanical nature.

When added up, the proposed improvements (filtered down to those which gave a tangible "Product Improvement" and "Cost Reduction") came to $339,000 for tooling costs and $132,000 p.a. (at about $9 per vehicle) annual cost saving – most of these being styling related.

Cost Reduction was a priority since it would appear that as of this month, average economic profit was $222 per vehicle under-budget.

This week's picture shows what is the best view of the P76 – and in this case, it is the side view of the full sized fibreglass (correction - wooden) model of 1970 which has been sanded and masked prior to painting. The subsequent fibreglass model was photographed in the Longbridge styling studio and then sent to Australia where everyone was excitedly awaiting their first view of a full-sized car.

Timeline photos

Timeline photos

Leycars

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Episode 18

With all this talk about warranty costs for the saloon, and S2 development, we should not forget about the P76 station wagon. This had also undergone significant development and was nearly at the production stage.

As readers will know, the body engineering tooling for the P76 models was developed by Pressed Steel Fisher (PSF) at Cowley. Pressed Steel were experts. Following the design brief supplied by Australia, PSF had to turn the models from Michelotti into a manufacturing reality. No mean feat. All the folds, ribs, swages, and details of just how the doors, boot and bonnet were to be attached, and as well, how the body could be stamped and welded. A massive job.

The pictures below show a good summary of the side views of the three models. The statistics for the body-in-white are (in inches):

Saloon: Length: 189.7, Width: 75.2 Height: 47.5
Wagon: Length: 189.7, Width: 75.2, Height: 47.7
S2: Length: 183.6, Width: 75.86, Height: 47.06

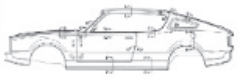
Not much in it really. The two door is a bit shorter than the others (probably on account of the missing nose), but surprisingly (and unlike some competitor vehicles), the wagon has the same overall length as the saloon. In fact, the wagon has the exact same floor pan as the saloon, all the way to the end of the boot.

It is interesting to compare the sheet metal at the front. These pictures show just what PSF was responsible for here. The nose and grille of the two door was not in their brief, nor was the grille for

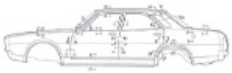
the saloon and wagon. By the time all this got back to Australia, Rodbergh had resigned, and Cassarchis had to come in cold and attend to these items, and significant items at that – not to mention the styling work required for Marina and P82 all going on at the same time.

Opinions differ as to how many wagons were actually built. My information, which I believe to be reliable, is three. Two produced in Experimental, and one on the normal assembly line. One was destroyed during crash testing. One was scrapped at Waterloo on plant closure, and one remains privately owned.


Timeline photos


Timeline photos


Timeline photos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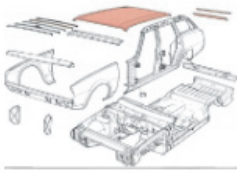
Timeline photos


Timeline photos

Leycars

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Episode 19

I'd like to talk about the door sill tread plates. This is one feature of the car that resulted in a lot of water and dust leak problems and an expensive replacement. The original design was essentially flat. There was no ridge at all and so any water or dust coming past the single door seal (itself rather ineffective) would have a clear passage to the underfelt and carpet. On top of the tread plate was a patterned finisher plate as shown below.

Now, badges, nameplates and mouldings are normally the responsibility of Styling. But, given the importance of dust and water sealing, the actual shape of the treadplates was more likely that of Body Engineering – that is, Graham Hardy, and since at that time Hardy also had charge of Styling, they were ultimately his responsibility no matter who designed them. Why Hardy would ask for flat style tread plates with no ridge has never been explained – but I think I've discovered the answer.

Buried in amongst the drawings for the P76 is tread plate finisher, Part No. HYC7034 (dated Jan 1973). This part does not appear in the parts book.

Think back to a typical Jaguar vehicle. You open the door, and the tread plate is embossed with "Jaguar". Now that's class. I'd say Hardy wanted the same for P76 and had in mind that his tread plates would be display "Michelotti". Not only that, but "Stylista" "Michelotti" "Torino" in Italian to make a European connection. (Remember Rodbergh left the company in 1970 – he would have never agreed to this!). Pictured below are some initial sketches of the Michelotti tread plate by David Hardy (who worked in Styling with both Rodbergh and Cassarchis and kindly provided these images) and David may be able to tell us more detail here.

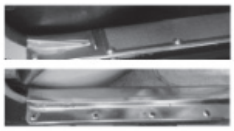
Now, Michelotti was charged with developing Rodbergh's styling ideas to a finished state and the final detailed shape was selected by the Australian management based upon slides of ¼ scale models sent to Sydney. He never agreed to have his name plastered all over the car, and I'd say (without any proof at all) that once he got wind of this idea, he said "No". Leyland Australia could say that the car was styled by him, but putting a badge on the car was quite a different thing. This was not a "Michelotti" but a "Leyland". Perhaps Hardy saw "Bertone" on some Alfas, or even Farina on the odd car or two. Michelotti would have wanted a nice licence fee for something like this and Beech could probably not have afforded this expense.

And so, in my opinion, that's why the tread plates were designed to be flat – in a far-sighted, but probably mistaken view, that Michelotti's name would appear there on production vehicles.
So urgent was a fix for the resulting water and dust leaks that the newly designed treadplates with a ridge were not put through the usual channels and the part number shown in the parts books refers to the earlier flat plates. The new plates HYC8406 were rushed through into production without going through the usual sign-off by various committees and eventually drawn up in September 1974.

The Dust investigation team allowed 0.85 hours for rectification (that is, fitting new style ridged plates – four needed per car). The new tread plates were offered as replacements for the original flat plates irrespective of warranty status.

Such a simple thing, but had quite expensive consequences.

Timeline photos



Timeline photos

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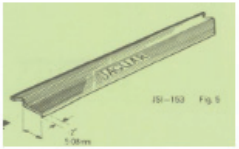

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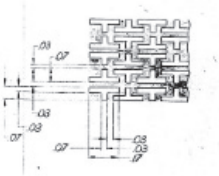

Timeline photos

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Episode 20

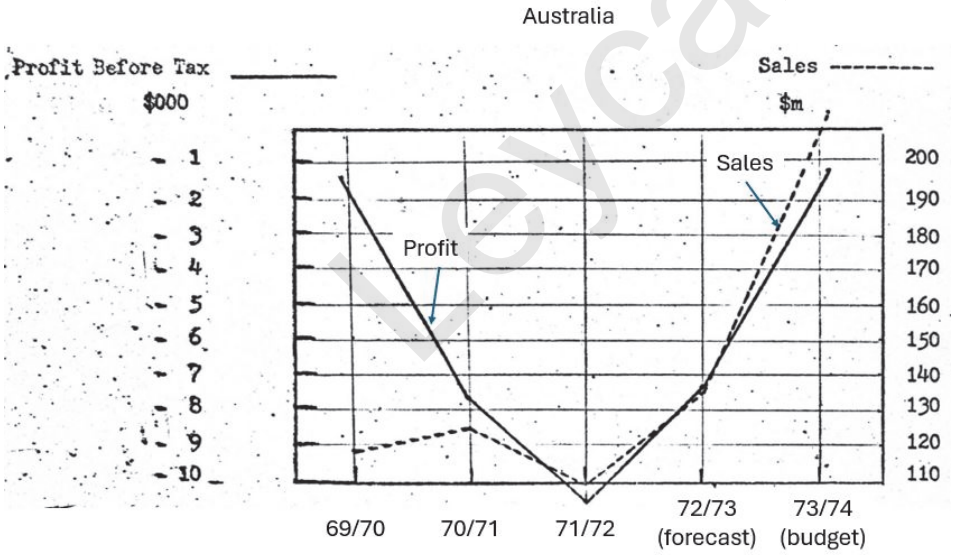
Well folks, my theory of the flat tread plates didn't hold up for very long, but essentially some Leyland engineer somewhere, whether it be Hardy, Lovegrove, or someone else, approved the fitting of these flat plates which led to so much dissatisfaction). Best account of the Michelotti involvement appears to have been from the sales and marketing people – but evidently this didn't fly (unless

someone out there has some special edition signed plates).

The Company divided its financial operations up into periods from 1 to 12, running from October to September. For each financial year period, a budget would be prepared for the next. The tables and graph shown here are probably dated about August 1973 and were most likely prepared by UK International Division.
The units of currency are a little confusing since on one page it says ($) and on another page it says pounds. As you can see, for the October 73 to September 74, the forecast was for a 7.3M loss, and the next year, a paltry 1.2M loss was budgeted.

Given the alarming state of affairs in UK, and the ballooning warranty costs of P76, it's no wonder North was under pressure and Stokes (about this time 50 years ago) was preparing to send Abell out to Sydney to see what the situation was since it was clear that North was not proceding very quickly with the supposed close down.

The third table shown gives a breakdown of finances for volume cars. These are forecasted figures (the warranty cost for P76 was already over $100 per unit). Other divisions, such as Parts and Accessories (doing quite well it seems), Trucks, and Special Products had their own problems of course, but volume cars was the deciding factor. Note the intended volumes for S2 and wagon. Marina also seems to have an optimistic estimate which surely could not be maintained in the face of competition from Torana, Cortina, Corolla, 180B, Galant and the like – all better cars.



1973/1974 BUDGET
SUMMARY OF GROUP RESULTS

	CAR DIVISION	PARTS & ACCESS.	TRUCK & BUS	SPECIAL PRODS.	GROUP	TOTAL GROUP
TRADING PROFIT	$(5,578,000)	$3,036,000	$1,622,000	$473,000	$ (970,000)	$(1,417,000)
Other Income	$ 1,630,000	$ 85,000	$ 10,000	$ 34,000		$ 1,759,000
P.B.I.T.	$(3,948,000)	$3,121,000	$1,632,000	$507,000	$ (970,000)	$ 342,000
Net Interest				$ 96,000	$(1,638,000)	$(1,542,000)
P.B.T.	$(3,948,000)	$3,121,000	$1,632,000	$603,000	$(2,608,000)	$(1,200,000)

Keycars

BRITISH LEYLAND INTERNATIONAL — REPORTING UNIT LEYLAND AUSTRALIA

PROFIT BUDGET 1973 / 74 — PRODUCT COST STUDY — MODEL — PER UNIT

EVALUATED AT BUDGET VOLUMES

DOMESTIC	MARINA	P76	S2	WAGON	MINI	MINI-VAN	MOKE		
RETAIL SELLING PRICE									
DEALER MARGIN									
WHOLESALE SELLING PRICE	2,150	2,771	2,942	2,652	1,554	1,540	1,395		
MATERIAL	1,360	1,723	1,748	1,680	946	867	792		
LABOUR	204	259	272	266	157	109	171		
FREIGHT	41	54	50	64	34	36	36		
WARRANTY	62	76	85	81	57	51	33		
WORLD WIDE ADVERTISING	24	-	-	-	20	26	23		
VARIABLE OVERHEADS	143	174	181	177	102	95	81		
PAYROLL TAX REBATE	-	-	-	-	-	-	-		
TOTAL VARIABLE COSTS	1,834	2,286	2,336	2,268	1,316	1,184	1,136		
ECONOMIC PROFIT	316	485	606	384	238	356	259		
UNITS	15,200	16,415	4,445	1,730	6,370	2,045	1,770		

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Episode 21

We're heading towards the end of May 1974. The weekly meetings for the S2 management team are now called "Critical Meetings" instead of the former "Timing Meetings". Items yet to be resolved are the black bumper bars – only 125 centres in stock and 176 corners. Trimboard in black, leather and white (supplier had difficulty in obtaining material), Drain channel finisher adhesive (problem with the rubber content), Windscreen moulding (only 143 in stock), and of course, the front end moulding (moulding now stable under heat, but not satisfactory dimensionally). Final position of mounting holes not resolved, mounting brackets dimensions not settled, and last but not least, the tread plates. Other items on the list for the Problem Solving Sub-Committee were Rear Side Drop Glass, Facia colouring, Taildoor mounting. Rework of trimming of the rear component (existing method causing bottlenecks in installation), excessive rework of front wing panels to ensure a consistent fit, fuel tank filler neck modification.

Now, with the tail door, Product Engineering were now analysing a new scheme of hinges to allow for painting of the component, fully fitted to the body instead of slave mounted using temporary fixtures.

As of now, 26 production cars had been built with an intended two per day until after management approval was given to increase to a firm production schedule.

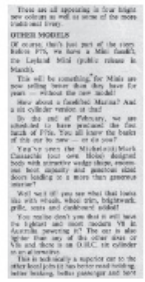
This meeting was to be Beech's last and by the end of the month, he was gone. The car was clearly nowhere near ready for launch despite the initial timing for Job No. 1 being 1st October 1973 and launch shortly thereafter. The Owner's Manual shows an introduction date of June 1974. In late August 1974, a reporter asked David Abell (by then, the Managing Director) when the Force 7 was

going to be introduced along with the wagon. Abell was non-committal – and no wonder because by then, the IAC Report had just been published and the whole future of the company was up in the air.

But, we are getting ahead of ourselves. As readers will no doubt appreciate, things were at a fever pitch with S2 introduction; warranty problems with the P76 saloon; new developments like the P82 (due for release in 1976), P76 Wagon, and six cylinder Marina (introduced late 73) occupying Product Engineering; and now, impending loss of the leadership of David Beech.

A year before, in 1973, the "Leyland City Times" (replacement for the BMC Rosette internal newspaper) was excitedly reporting "Peter North Spells Out a Bright Company Future". Will Hagon, our favourite motoring journalist, was at that time head of Public Relations at Leyland Australia and writes about the "Exciting Menu for '73" (see pictures below).

What a difference a year makes. From a bright future to what must surely be described as studied desperation - and in the middle of all this, a young bloke from UK turns up to see what is going on



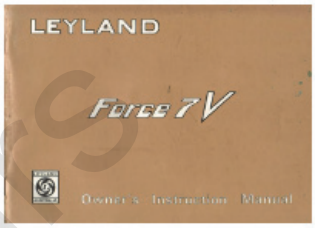
Timeline photos


LEYLAND PRODUCT PLANS EXCITING MENU FOR '73

Leyland's plant and head office at Waterloo is the only complete car factory operating in New South Wales.

Timeline photos

Timeline photos



Timeline photos

Timeline photos

Leycars

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Episode 22

Back in February 1974, it was decided to enter a P76 in the 1974 World Cup Rally which was to be held from 5th to 25th May. The vehicle was crewed by Evan Green and John Bryson.

The car began as a crystal white Executive and heavily modified for the event. All the modifications were completed in a 20 day period with two full-time helpers (Brian Hope and Paul Crotty) at the Shell Auto Centre in Roseville. Brian Hope also serviced the car during the event. Additional time was found to do a 700 km shakedown in outback NSW and a final styling paint dress-up before air freighting to UK. Additional preparation was then done at Special Tuning in Abingdon prior to scrutineering.

The image below shows the timing of various stages up to the start of the event.

The body came in for substantial stiffening and strengthening. A full cabin aluminium roll cage, and fibreglass bonnet and boot lids were fitted and secured with Moke rubber straps. Door trims and window winders removed, rear seats removed and the production fascia and bulk head fittings removed and a full steel fascia welded to the bulk head with custom instrument layout and Halda navigational aid. No floor coverings, no sound deadening, radiator grille removed, and a light weight bull bar with driving light mountings fitted with a mesh screen.

Front and rear bumper bars removed and replaced by two parallel “jump” bar and towing eye. Front cross member towers were gusseted. Lower arms strengthened with a stiffener welded to the forgings. Tie bars stiffened, rear lower link plated with steel. Rear shock absorbers re-valved to P76 wagon specifications. Front strut mounts had additional spot welding and the struts themselves re-valved.

Limit slip differential and balanced propeller shaft. A special 16:1 unboosted power steering gear was manufactured by TRW with solid pinion of welded construction, steel thrust plate, and a revised yoke load setting with all pipes, seals and internal piston removed (not required for “Manual” mode). A leather steering wheel was fitted in lieu of standard.

A larger capacity radiator and mounted directly to the body. Rear brakes had stiffened back plates and lower friction shoes to give better wear rate. Handbrake cable reworked to operate via a Mini central pull up lever. The front brakes had lower friction pads and no dust shields.

Two 20 gallon fuel tanks fitted one above the axle and one in the boot well and an electric fuel pump was used to pump fuel from the bottom tank to the top tank when required – the top tank being the one which fed the carburettor.

Standard 6 inch road wheels were used, and (somewhat curiously given the efforts to reduce weight), air conditioning fitted. An engine oil cooler was fitted, special VDO capillary gauges for water temp and oil, and a special wiring harness. Hella QH lamps and additional driving lights on the front mounting bracket with additional positions located in the roof panel. 55 A alternator was hand built by Lucas and fitted with an external control box to prevent over-heating. The windscreen wiper motor was modified to prevent parking, so that they would provide an instant wiping operation.

The engine was a standard 4.4L V8 which was stripped down, crack tested, balanced, and reassembled using production clearances, with a dynamometer test to check. Welsh plugs were locked in place with self tapping screws, and a hardened steel alloy sump guard bolted onto the body front longitudinal.

The cylinder heads were “carefully selected” from production, having good support under the valve seats and good casting finish. They were reworked by Lynx Engineering for matched combustion chamber volume and mild polish on ports. A set of “crack free” valves were selected and lapped in to the seats, and valve springs of the highest stiffness selected from production.

A lightened flywheel and high clamp load clutch fitted, all balanced and crack tested.

Also fitted were a hand built dust proof starter motor from Lucas, standard B-W 4 speed gearbox (stripped and checked by BW), hand built distributor from Lucas, and gear selector pins lockwired.

Maximum power was recorded as 158 BHP and max Torque 258 lbsft.

David Hardy was responsible for adding the broad spear-shaped stripe in dark metallic navy which followed the profile of the upper body-side, then turned up at the rear and carried across the boot lid. Gold outlines, as well as a large “AUSTRALIA” with a little southern cross behind it, and the names of the drivers: Evan Green and John Bryson, were then applied over the dark blue. Next came the bonnet. Hardy gave “Big Brut” something different to the usual black bonnet seen on most rally cars by adding flatting base to the dark metallic navy, thereby creating a metallic matte navy blue. A large Southern Cross was cut from the gold sheet and applied it diagonally across.

The vehicle performed remarkably well, being placed officially 13th out of 52 starters. There were a few mechanical problems, the most serious being the failure of the front suspension struts due to a

Leycars

sideways over-bending resulting from insufficient clearance between the top pivot plates and the rebound security washers.

Tie bar washers failed in fatigue and had to be modified. Carburetter fuel blockage (dirt). Front brakes cracked on two pads,

The strut failure put additional load on to the lower control arms which then kinked and had to be replaced. This in turn caused both inner guards to be punctured and an inner and outer skin were fitted.

Shock absorber fluid boiled and leaked. Windscreen washer failed. Starter motor relay failed, alternator failed bearing.

This event gave Leyland, and the car, a massive boost in esteem and even though the buying public would not have been aware of the extensive modifications. So outstanding was its performance in the Targa Florio section that a special edition of the model was released later in the year. Evan Green subsequently wrote a book about the whole thing "A Book Full of Right Arms" – now an expensive collector's item.

I haven't been able to find exactly where this Shell Auto Centre is at Roseville – there are only two petrol stations in Roseville that I know about and one is at the top of the hill near Roseville Bridge – which used to be owned by Barry Antella and has a large workshop area underneath. The final disposition of the car would be interesting. Perhaps some P76 enthusiast can fill us in on what happened to it.

All up, an outstanding effort by the car, the drivers, and the mechanics. Given the gruelling nature of the event, it did show that despite its many problems in the hands of the customers, the basic vehicle design was capable of putting in a world class performance for reliability if given enough care and preparation

Timeline photos

Timeline photos

Timeline photos

Timeline photos

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Episode 23

In mid-June it must have become apparent to the UK management that Peter North was not preparing to close down the factory, but instead, was fighting a rear-guard action and doing everything possible to keep things afloat. 31 year old David Abell was sent out from UK to see what was going on.

Abell's arrival was a bit of surprise for everyone. Department heads were called to a meeting in the downstairs theatrette. Chris Rogers remembers everyone standing around wondering what it was all about, and there was some young guy in the corner whom nobody knew and no one spoke to. North introduced Abell to the local management, and within a week, Abell was conducting interviews with staff managers from Finance to Production.

One of the most immediate actions resulting from these interviews was a meeting of factory managers where they were requested to lose overall 1200 staff and factory personnel. At that time if you were over 65 you could be retired legally. Someone asked if anyone had checked the ages of the employees. The answer was No. The meeting was postponed until a check was made. At the next meeting, it was revealed that there were 283 personnel employed over 65 who could be "retired" right away. It was found that one person in the Unit Plant was aged 83.

Although Norm Prescott was the National Service Manager, it is interesting that Bruce Elson and Norm Burnett were called into see Abell directly. Elson was the man-on-the-ground in the service department and Burnett was in charge of warranty costs. Abell asked what the warranty situation was with P76. Elson was to prepare a list of the technical issues and the percentage of vehicles involved, while Burnett was to give a costing for the same. The next week, Abell called the pair into his office again and looked at the figures. "Are you sure this is correct?" he asked. "Yes", replied Elson. In speaking to Bruce recently, he believes this was the moment that Abell had decided in his mind that the P76 had to go. It was just not viable to continue – but he didn't say anything at this point.

By the end of June, some 1000 workers had been dismissed. Morale plummeted. It was generally thought by the local staff that they would never close the factory, but by now, most were wondering if P76 would be cancelled. The departure of Beech must have indicated what was to happen, but with even so obvious a clue, those in Product Engineering continued at full pace to prepare for the MKII P76, Force 7, Wagon and P82.

Abell returned to UK at the end of the month to give his report to the UK executive. He was to return in July to take over the reins and close the place down by the end of the year.

Leycars

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Episode 24

In mid-June, it was reported that Leyland's trading losses accumulated over the past three years totalled some $15M AUD – a figure reported in the press some 9 months after the close of the Company's financial year back in Sept 73. Peter North was forced to concede that even with currency movements (the effect of which were favourable), the local company was not operating profitably.

North blamed the situation on industrial disputes, local component shortages, and the effect on imports of components and vehicles of Britain's three day working week. The problems actually go back quite some time before and the slide downhill began when the Company began to manufacture under the local-content plans introduced in the 1960s. Although initially a success, the front wheel drive range had a good innings up to about 1965, but then the slide downhill began and wouldn't turn around for another decade.

Abell was a profit-maker. Stokes, and more importantly, John Barber, sent him out to Australia to see what it would take to make Leyland Australia profitable. His work with Prestcold had established his reputation with Stokes although he had worked for Barber some years previously with Ford. He was referred to as "The Company Doctor". All British Leyland would say upon Abell's arrival in Sydney in June was that "it was reviewing its situation in the Australian market". BL UK had reported a loss of $A25M in the six months to March 1974 and Stokes wasn't about to send more money to Australia in the face of more losses.

Abell was never a fan of local manufacture unless it could be justified on economic grounds. As far as Australia was concerned, the only justification for local manufacture was to curry favour with the Government, who were then expected to protect the company from cheap imports via tariffs. But with the Government changing the rules on tariffs, and the Industry Assistance Commission report imminent, most people in the industry knew that the Australian market was not large enough to support four major manufacturers and Leyland was the most vulnerable.

It would be nice to obtain a copy of Abell's report when he returned to UK, but it is easy to surmise the gist of it via his press conferences and interviews when he returned to Australia in mid July. The P76 launch was a do or die vehicle for Leyland Australia, and the way things were going, it didn't take Abell long to decide it was going for the chop and there would never be a local volume car again – thus cutting out nearly all of Product Engineering, Experimental and other associated departments. This was obviously where the fat was. If I might make a personal comment here, he's probably right – but not the fault of the engineers on the ground who just did their job. Imagine what the front wheel drive Austin 1800 V8 cost? Or the 1800 utility? The six cylinder Marina? The losses from these flights of fancy would come back to roost. No wonder Abbott hit the roof when he was shown the wide-body Freeway back in the early 60s.

Upon his return to UK, it was evident that Abell recommended to Stokes that the Waterloo/Zetland site should be closed, P76, Force 7, P82 and all new development should be abandoned, Marina discontinued, and Mini and Moke transferred to Enfield. He saw more value in Truck and Bus and importing specialist vehicles like Jaguar and Triumph. Stokes asked him if he wanted the job – and so he came a second time and it all happened from there quite quickly. His promise to Stokes was to make Leyland Australia profitable again within two years.

Leycars

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Episode 25

It's coming to the end of June 1974. Abell has gone back to UK to report to Stokes, Beech has departed, and it's back to work on the S2.

On the 27th June, the Committee met twice in one day – first at 12:30 pm, and then again at 2:30 pm. This meeting went on for all of the afternoon.

In desperation, it was decided to look at alternative materials for the troublesome nose cone and engaged Bolwell (for those in UK, Bolwell is a small Australian outfit that made a very desirable fibreglass sports car– the company is still going) to prepare some samples. The alternative nose cone materials were: Fibreglass; polyester; epoxy resin; Valox resin; and milled fibreglass. By now, hundreds of nose cones had been manufactured and none were considered production ready. If they fitted, they would buckle in the paint oven. If they were made so as not buckle, they would not fit without significant stresses at the mountings.

The bumper bars were still giving plenty of problems in that the durability of the black epoxy finish was unacceptable, especially on unsealed roads, plus, there was still an unresolved "severe body inconsistency" which caused difficulty in their fitment. The committee decided to solider on for this one rather than revert to a chrome finish. But, in a surprise move, the Service Department and also Parts and Accessories were invited to submit proposals for a solution! (Now, this is particularly sensitive because most of those in Service had just about enough of the P76 and blamed those in Product Engineering for not consulting them before things went into production. So, close to the end of the road, Service was at last about to have their say.)

The proposed remounting of the tail door was abandoned as requiring too much product development.

The front door drop glass mechanism was still up in the air, with the Committee now considering a gear sector as used in the wagon tail door instead of the present cable system.

In place of Beech, Jim Brothers was now chairman, and there would be no doubt he was wondering if all the pain was worth the effort after Abell has come and gone and the future was even more uncertain than ever. Despite this, he and his team continued at full pace, putting their utmost into getting this car production ready.

The Advanced Model Group were going at full steam on P82 (which we will come to in a future post), and Cassarchis (Styling) was polishing off changes for the facelift P76 Saloon and also P82.
But, unknown to those at Zetland at this point, Abell was to return in mid July for the coup de grace.

Incidentally, one of the Force 7's that changed hands recently was Kjell Erikson's car. This was considered to be the best of the lot, having all the modifications done to it as they were developed.

Leyland

Bid History for 70 - 1974 Leyland Force 7V

Bidder	Bids	High Bid	Last Bid
**********	1	170,000.00 AUD	7/13/2019 8:15 PM
**********	2	160,000.00 AUD	7/14/2019 2:37 AM
**********	1	140,000.00 AUD	7/14/2019 2:37 AM
**********	7	120,000.00 AUD	7/8/2019 8:14 PM
**********	1	97,500.00 AUD	7/9/2019 9:06 AM
**********	6	92,500.00 AUD	7/4/2019 1:44 PM
**********	1	75,000.00 AUD	7/3/2019 12:37 AM
**********	3	5,000.00 AUD	7/3/2019 2:48 AM
**********	2	275.00 AUD	7/3/2019 2:06 AM

Leyears

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Episode 26

It's late June and coming into early July, and things are in limbo as far as the Company's future is concerned. Some long time senior managers have jumped ship, North remains at the helm, and those on the ground are plugging away. To get a feeling for the situation at Leyland Australia, consider the following statistics – and these give measure to the size of the gamble made with P76.

In the period 1968 to 1974, there were three main categories of volume cars, Small (representing 20% of total passenger registrations), Light (32%), Medium (42%), Luxury (representing 5.6%). At first, BMC/Leyland Australia were doing very well indeed.

In the small car segment, we have Morris 850 and Mini Deluxe, competing with Colt, Imp, Torana, Corolla, Mazda 1000, Datsun 1000, VW 1300, Fiat 850, Renault 10 and others like Bellett.

In the light segment, we have Mini Cooper S, Morris 1500, Marina, MG Midget competing with Cortina, Hunter, Corona, Mazda 1500, Datsun 1600, VW 1600, Fiat 124.

In the Medium segment, Leyland offers Austin 1800/Kimberley/Tasman and MGB (and then later

P76), competing with Falcon/Fairlane, Valiant 6/8, Holden 6/8, Crown, Datsun 2000 sports, Fiat 125.

And in the Luxury segment, Leyland sells Rover 2000/3.5, Jaguar 420/XJ6 with the others with models from GMH Ford, Chrysler, Mercedes, Volvo, Peugeot, BMW, Alfa Romeo, Rambler, Fiat.

Now, you can see from the above list BMC/Leyland are struggling in the Medium segment with the 1800/Kimberley/Tasman/Marina – I would have thought these compete more with Torana/Cortina yet here we have Leyland putting them up against Falcons and Holdens with 6/8 cylinder engines.

In the late 60s, the Medium car segment was considered the fastest growing, and so P76, a large car, and a more suitable competitor, was conceived and approved. But, look what happened:

From 1968 to 1973, the Small car segment grew at a rate of an average of 10% per year. The Light car segment showed a growth of about 13.3% per year, Medium car segment: a decline of about 7.3% per year, and the Luxury segment, a growth of 16.7% per year on average.

It's easy to have hindsight of course, but unfortunately, the wrong horse was chosen.

By 1973, there was a monetary squeeze (similar to what happened in the very early 60s), a slump in business profits overall, unemployment showed a sharp decline, balance of payments was in turmoil with revaluations of the $AUD. Import restrictions were relaxed leading to nearly a 100% increase of Japanese imported cars compared to previous years, the company was overstocked, exports to NZ had virtually dried up, and there was a looming oil crisis in the Middle East beginning with an oil embargo to Japan. And of course, all those industrial problems in UK. Hardly a great time to be launching a new large car.

Curiously, the fastest growing segment of the Australian market in this period was in Light Commercials (9.4% growth) of which the Mini Van was up against Holden and Falcon wagons. Sadly, the Austin 1800 utility was a non-starter, and Sales didn't even want to look at a Tasman ute. Perhaps a Marina wagon could have been something, and the P76 wagon, by this measure, had a rosy future.

But, even with continued growth for small cars, things were not so good where traditionally the Company had done so well. Mini had suffered a decline of 70% of its market share going from 17.8% in 1968 down to 5.2% from 1968 to 1974. A particularly bad year for Mini was 1969 with the introduction of the Mini K. Mini K was up against Torana (37% market share at its peak), and Honda Civic (12%).

Even the Marina couldn't save the Light car segment going from 31% in 1968 to 5.8%. By 1974, Marina had gone down to 3.4% of this segment. GMH were doing well with the new Torana while Datsun's 180B was 15% of the market. Even Celica, a newcomer, had 13.3%.

In the Medium segment, Tasman/Kimberley had seen Leyland's market share fall from 8.1% to 2.9%, and when P76 was introduced, the Company's market share in this segment fell to 2.1%. Ford commandeered some 30% of the market and GMH (with the HQ) some 28%. The Japanese had some 15% of the market and growing with the Mazda 929 being particularly successful.

In the luxury market, things were not going so well either. Volvo was surging ahead, Ford (Landau), Holden Stateman, all doing well, while Leyland's share had fallen from 22% to 13%.

Leyland

So, with these figures, it is easy to see that Stokes despite his personal support for the P76, had no choice but to take urgent action. How was he going to turn the loss-making Australian operation around to being profitable. Who better to send out but Abell. He pulled it off for Prestcold, and here was a challenge right up his street.

With Abell back in UK outlining his profitability plans to Stokes, the Industries Assistance Commission had, since the beginning of the year, been analysing the automotive manufacturing industry in Australia and some leaks of their findings were now starting to surface - but the actual official report would not come out for a couple of months. With this background, Abell was to return to take charge in mid-July.

The pictures below show the Company's marketing conception of the model range as of the end of 1974 and expected market penetrations for 1975.

ROVER

Positioned at the lower end of the luxury car market and offering quite distinctive power and safety characteristics. Selected media.

MOKE AND MOKE PICK-UP

Versatility and exceptionally low initial cost and running costs. Dual positioning as recreational and commercial vehicles.

Limited mass-media advertising and promotion plus direct mail to potential industrial and commercial market.

AUSTIN-MORRIS

MINI AND MARINA

Economic packages offering comfort and convenience within their market segments. In summary: economy with dependability.

Marina economy as a package

Mini via fuel and running costs

Media and Sales Promotion support

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CORPORATE MARKETING STANCE

Leyland seen as a distributor of a diverse range of imported cars, notably specialist and luxury cars offering traditional but valuable performance and handling characteristics.

Significantly, each model line to exist as an entity without a strong corporate backing e.g. Triumph retains its individuality as a marque and relies on Leyland for distribution and service back up

1975

Passenger T.I.V. 490.0 units '000

Mini Sedan	5.8
Marina	5.2
ADO 71	.6
P76	1.1
Dolomite/Sprint	1.2
Innsbruck	1.8
Spitfire	.5
Stag	.55
Rover	.75
Jaguar	1.6
Total Passenger	19.1

Commercial T.I.V. 122.0

Moke	1.6
Van	1.5
Total Light Cmmcl.	3.1
Total Market	512.0
Total Leyland	22.2

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TRIUMPH

Medium priced specialist cars, offering exceptional handling and performance with heavy emphasis upon competition endorsement.

Media plus sales promotion in conjunction with competition programme.

JAGUAR

Upper luxury car market. Positioned primarily on power/performance and handling. Well-priced relative to Mercedes.

Highly personalised promotion direct to the luxury car prospects and business media advertising.

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Episode 27

It's mid-July 1974 and David Abell has arrived for the second time but now installed as the new Managing Director of the Australian operations. Aged 31, he is the youngest ever Managing Director of a motor vehicle company. One of the first casualties is Peter North, who (although resigned in secret back in Feb, but stayed on to ostensibly wind the place down, but actually did his utmost to keep it going) was "let go". Abell had promised Stokes that he would get Leyland Australia profitable within two years.

Although the Industries Assistance Commission report was imminent, enough detail had been leaked to the extent that everyone knew that the IAC had concluded that there was not enough market volume in Australia for four large manufacturers and one would have to go. The obvious choice was Leyland, the smallest and least profitable. Abell had, by this time, already decided that there would be no more new Australian models and as a consequence, the "several million per year" consumed by Product Development would be saved. The company, as he saw it, would be something like AMI – an assembler of overseas-designed vehicles modified slightly for local conditions. Abell saw profit in specialist cars like Jaguar, Rover and Triumph but none in new Australian models which required so much investment.

But what of the P76. When asked "does British Leyland think it was a mistake in allowing the P76 to

develop?" Abell replied, "well, anybody can be very clever in hindsight. I'd tell you the answer to that off the record, but I wouldn't want you to print it". But he was stuck with it and his only decision was to balance the cost of stopping it immediately and writing off some $15M in tooling costs, or trying to claw some of that back while still manufacturing it but with no Series II or further development.

Of the S2 and Wagon, he said that he'd only release these models if they were absolutely right – and given the meeting minutes we've all been following in the last few months, nothing was going right at all really. The original release date for S2 had long since passed and the nose cone hadn't been settled, the front and side rear windows were still undergoing last minute development, and even the tailgate was being looked at askance. These cars were nowhere near ready. P82? Well, that didn't stand a chance now although substantial work had been done both on the engineering and the styling (both Cassarchis and Michelotti being at an advanced stage). The final decision on these would be made in a matter of weeks.

The next step was to wait until the Government announced which of the IAC recommendations would be accepted. This would take a couple of months. In the meantime, Abell was setting up a deal with AMI for then to continue assembling Triumph, and also getting a suitable distribution and dealer structure in place for a new slimline operation.

As for his relationship with those in UK, he says "I have got complete autonomy and I have got a lot of friends in England. They have been with the Company for a while. I worked with these people and they are moving into positions of influence. I know virtually anybody that is important in England."

It is somehow ironic that when Beech resigned, he said to a reporter that most of his problems had been "the politics and infighting which were going on at the parent company" and that he "spent 90 percent of his time arguing and 10% trying to do what should be done." He described himself "the last of the old BMC people of any consequence" at Leyland Australia. Yes, indeed, the old guard just didn't fit any more while the new well-connected young bloke was in high favour.

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Episode 28

It's the third week of July and Abell is at the helm and North is gone. Everyone is still waiting on the official release of the IAC report. Not only had the Report yet to be officially received, but then a further wait would be required to see which of the recommendations would be adopted by the Government.

Rumours were flying about to the detriment of everyone, and so the company issued an official statement (see images below).

You can see here that the Management is for the first time suggesting the possibility of reducing local content and starting imports of built-up Marina wagons, sedans and other makes such as Triumph, Rover. That is, Abell getting people used to the idea that the Company would reduce its manufacturing (both in house and local) and move into importing – and mentioning Triumph and Rover by name.

The message is that Leyland is here to stay. But, as for the local factory, Abell was holding his cards close to his chest. He'd already decided that no more would be spent on P76 MKII, or wagons or S2,

Leycars

or P82 – his only concern as to manufacturing being how to balance between ceasing the present P76 while recovering as much of the development costs already spent.

Winding down an operation like Zetland/Waterloo and transferring whatever manufacturing would remain somewhere else (eventually to be at Enfield), and transferring any remaining development to a smaller site (eventually to be at Moorebank) requires significant planning. Not only to transfer the operations, but to select who would stay and who would go. The best engineering administrator in the place was Peter Davis, and he was told the awful truth early, on the condition that he would say absolutely nothing to anyone and if he did, he would be the first to be let go.

Meanwhile, Fulford & Co over in Product Engineering were working flat out on P82 and Peter was coming under fire for now moving quickly enough on the necessary paperwork for this new model. Drawings, Parts Lists, and all the paraphernalia that accompanies a new model had to be set up. Peter ended up working on P82/P76 MKII during the day (knowing it was all for nothing) and planning the upcoming changes at night at home.

But what of Hardy and Anderson? Curiously, Hardy's name is seldom mentioned in the P82 documents, but Anderson and Cassarchis were full time on it. Hardy was actually busy over at SMBD (Sheet Metal and Body Division) administering the Body Dimensional Task Force whose final report would be forthcoming later in the year.

Also about this time Ron Moss had been moved from the Unit Plant to SMBD. More on Ron's work there next week

1. We could change to overseas sourcing of a substantial value of components presently purchased or made locally in order to achieve the present high local content levels, particularly for P76. The potential savings per car are substantial, even after paying the proposed duty rates on those components and on the components already being imported. These savings would result from reducing local content to 80% from the present 96% on P76, 90% on Mini and 90% on Marina.

2. We could start importing built-up Marina wagons, some 4-cylinder Marina sedans and coupes, MG.B, MG.B.V8, Triumph Dolomite/Sprint, Rover 2000 and several other U.K- and European-made British Leyland cars. The present rules prevent us as a manufacturer from importing these cars. B.U. import even after paying duty would be profitable.

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12/7/74

REPORT IMPLIES OPPORTUNITY STATES LEYLAND CHIEF.

We have not yet received the I.A.C. report, and therefore have not been able to study it to fully assess any of the implications reported.

From press reports, it appears the Commission's recommendations open up much the same opportunities as we expected. In fact, our submission to the I.A.C. suggested that 80% local content was probably the optimum level for local manufacture, and this is what the report apparently leans towards.

The most far-reaching implications of the report appear to be in the scope of local component manufacturing, both by the parts manufacturers and the vehicle manufacturers themselves. This would have a significant impact on employment, and so it seems reasonable to question whether the Government will accept the report in full.

Assuming the report is accepted, we see changes that offer our own company some very attractive opportunities for re-orienting our Australian operations:

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The result could be that we would concentrate local component manufacturing on those items not readily available from overseas. In looking at overseas sourcing on some components, we would consider U.S., Japan, U.K. and some European countries.

The Commission's report does not appear to affect the prospects of our profitable commercial vehicle operations, which account for about 1/3 of total company assets.

The suggestion that the Commission's report does not offer Leyland Australia an opportunity for a profitable future in Australia is most presumptuous. Leyland does and will continue to operate in all major countries, including Australia. The issues we face if the report is adopted are basically deciding where and at what level of local content we produce the total range of vehicles to be marketed in Australia.

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Episode 29

While things were in an uneasy limbo at the factory, feelings were running high in the public domain. Reproduced below is a letter sent to the National Times in response to an article written by one of Australia's most senior motoring journalists, Peter Burden. As you can see, Mr Coppin is mighty offended at an article (it is not necessary for me to show the article since Coppin's letter just about states it all again).

To Mr Peter Bruden,
"Motoring" writer
"The National Times"
GPO Box 506 Sydney NSW 2001

From: Mr Graham A Coppin
Perth WA
4th July 1974/

Dear Sir,
On reading the caption "Leyland's P76… a car without a future" to a crude photograph of the car in your "Motoring" article in the National Times, July 1-6, 1974, I was prompted to making the following comments:

Firstly, you do not place a question mark after "… a car without a future" thus you are making a statement, I presume, which should be substantiated in the article to follow. However I can find nothing in the article to state why the car does not have a future or that there is actually anything

wrong with the car anyway.

Now let's deal with the "article". The first two columns are devoted to staff changes and personality clashes – unimportant to my mind – possibly a new broom sweeps clean and the results may not be apparent immediately. At this stage I must say that the tone of the article is such that I would think you and another reporter (both somewhat "under the weather") took pains to bait a Leyland director about the car and, having lost the argument (you I mean) went off to write a nasty little article. What a piece of string has to do with anything I am at a loss to understand… you say nothing! As far as selling 11,291 P76's in the first 11 months, this seems quite reasonable as "Holden" in their first year of production (1949) turned out a mere 7,254 (you forgot to mention this).

Now what do you know about a motor car Mr Burden? Is this an "Opinion column" article (Reader's) written in generalisations or an objective "Critic's article" (I think not) – you apparently did not read test the car and say nothing about the actual elements of the car such as Engine, Braking, Steering, etc etc, or whether they were good or bad. You make no direct comparisons. You single out the Executive V-8 for a vague comparison with the similar models in other brands; but, Mr Burden, we are not discussing this minute segment of the market – we are discussing the P76. Throughout the article the inference is that you demand some nebulous quality "great things" of the car but do not explain your version of "great things". You are demanding a lot, yet you do the "ostrich act" when you have the engineering features explained in some detail. You get yourself in a real tangle in Column 4 onwards stumbling over yourself to "rubbish" the car without any substance in your ravings.

I could stop here but I will go on… To the question you raise of "what motors cars are all about" you say you add up a number of elements which "must end up with a successful and desirable product" and go on to say "Wrong. You end up with a P76". You (Peter Burden) forget to say what ending up with a P76 means – your inference is that it is something undesirable??? Please explain. You say "Leyland's engineering staff got the sums right in a hundred plus things" but you go on to say "but it is not a motor car"??? We are not of course interested in an ex-Leyland man's comments on "subtleties of design" are we? You say if Leyland's "Can-do management (your coined expression) "had pulled it (the design) all together there may have been something great"… but could not however and it got the P76" – again an inference without substance – these cliches become tiresome when they are not backed up by substance.

You reluctantly introduce comments (which incidentally were most favourable) and go on to mention that "a national magazine gave it a car of the year award" – no comment on this by you peter. In fact you continue the paragraph with something unrelated and go on to blame Leyland for a "shrewd turn of phrase" in explaining that cars could not be delivered because of supply shortages – let's admit Mr Burden, there have been shortages and still are.

By your term "Mother England" and mention of the "Colonies" it appears you are fiercely "colonial" and pro-American. Incidentally it betas me what you, and the likes of you, think we Australian might have in comment with the yanks that we should have a special affinity to them and soft pedal any comments on their products.
Your article is neither charitable nor humorous – you mention nothing on the credit side.

For your information, I will mention a few credits:-
Economical, reliable, durable, 6-cylinder motor.

Leycars

Advanced, proven 3.5litre V8 (Rover) motor (lighter than the “rest”).
Borg Warner Automatic Gearbox (second to none).
The “100 odd” engineering features you chose not to detail.
The modern styling – streets ahead of the “other 3” (all similar).
The braking, etc, etc, etc,

One might consider that the article was commission by General Motors and/or the other 2. It is just the type of article which would suit their purpose… Vicious with no criticisms of sufficient substance to be argued in court and obviously designed to harm Leyland’s sales of a car which is a direct and “dangerous” competitor in the popular field. It would hurt if Leyland tool 25% of the Australian-made car market (60% total sales).

I will of course be writing to your Chief Editor to ask how it came about that he let an article of such poor calibre slip his notice.
Trusting for a little better “journalism” in future “Motoring” articles in the “National Times”

Yours faithfully,
Grahame A Coppin.

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Episode 30

In late May, the Sales and Marketing people were asking for something to lift sales. Financial Controller Frank Andrew asked Product Engineering Administration Manager Peter Davis to draw up specifications for a special production order on a Level 3, 4 door saloon with an automatic 3 speed floor shift transmission using components that were to be used on the S2. Based on the V8 Super with floor shift automatic, the equipment included as standard were alloy road wheels, special steering wheel, power steering, radial 185 tyres, radio with twin speakers, power aerial, laminated glass, reclining seats, full floor change console, metallic paint, limited slip differential, side decals, and air conditioning (option).

Of course it was not generally known at this time that the S2 program was to be cancelled but the desire to use the parts from this car for a marketing update to the P76 must have caused some speculation. The resulting limited run (300) “Targa Florio” model released in August ($4,890) celebrated the outright win on that section in the World Cup Rally back in May and was an instant success. The distinctive side decals were drawn up using the Plan printing machine.

About this time, Ron Moss was transferred from the Unit Plant over to SMBD, He was given a P76 as his company car. Knowing of the body problems, he got all the foremen outside underneath the overhead conveyor between SMBD and the Rotodip area and they went over his car. Moss pointed out the margins, the bad finish between two panels, and then asked them “Do you know which area is yours? If you were buying this car, would you think that this area should be better for your car?”

That started off a regime of getting each foreman mindful of quality control to actually have a better look at the product they were producing and to recommend anything that might improve it. This change in culture was the driving force behind the body improvements that subsequently occurred. Indeed, Moss’s approach was somewhat similar to the previously tried worker-participation style of

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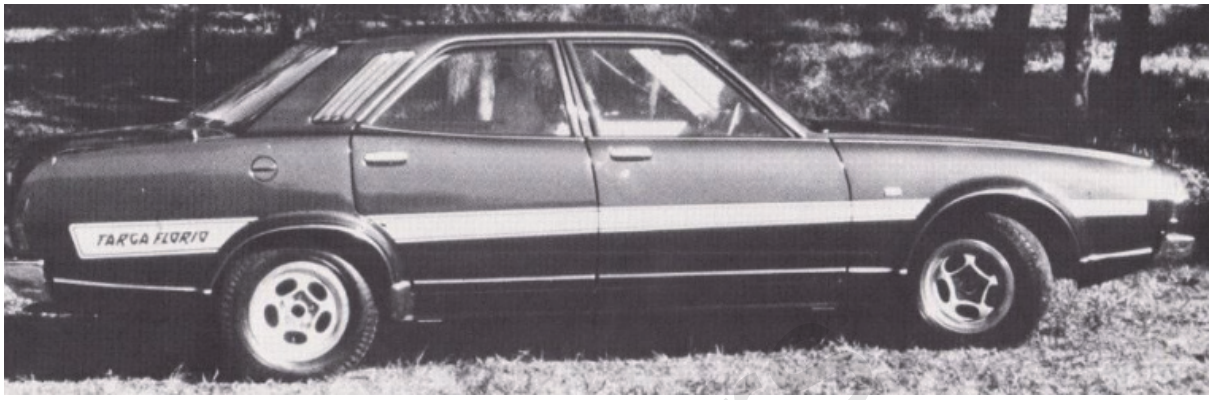
Robson but in contrast to this, Moss focussed on the line management – the foremen, rather than the workers, thus giving the foremen a sense of responsibility that Robson's approach had failed to do.

Modern Motor (Nov. 1974 issue) was to exclaim "If the Targa Florio which was the subject of this test is indicative of the current level of production quality, then Leyland are at last able to confidently say that they are approaching a satisfactory level of engineering quality. The finish of the car was first class…the finish and general appearance of the Targa Florio was the first thing to impress the test crew."



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Episode 31

Although the IAC report had by now been released (making it clear there was no room for four major manufacturers in Australia), the Government was not due to officially state which of the IAC recommendations would be accepted until December. But Leyland was well connected politically. Company stalwart Norman Lawrance had years of experience in dealing with Government ministers, and he would have brokered communications between Abell and Kep Enderby (the Minister responsible – and by a strange twist of fate, the same Minister who poured champagne over bonnet of the P76 at its launch a year earlier). Enderby had told Abell that Leyland was the "fourth" manufacturer – the one that wouldn't find a chair when the music stopped. We'll get to how Abell masterly managed Enderby and his Government next week, but for now, let's keep our eyes on the Company.

While the workforce was largely kept in the dark about these high level discussions, some of the senior managers had been told what was going to happen. Peter Davis was going slow on the P76 Series II and P82 documents while at the same time planning about what would be needed to carry forward to Moorebank (the new centre for what was to remain of Product Engineering). Stringfellow was starting to give some thought to the situation at Enfield.

The future of thousands of factory workers was at stake, not to mention the outside suppliers. But, you may wonder: Why all the secrecy?

The issue was that Abell was going to change the Company from being a manufacturer to being an importer. But, the problem was to do this, he desperately needed the dealers to remain and not jump ship. Not only would the dealers be needed to offload P76 and Marina stocks, but to also gear

up for a change of product: Triumph, Rover, Jaguar, Land Rover plus the old faithfuls Mini and Moke. John Kay, Director of Sales, writes in a confidential memo:

> "The strategy must be to continue an atmosphere of continuity and rosy future – to fight for volume at any cost and to promise the dealers anything to retain their involvement and interest."

The task was full of competing forces, loyalties, and compromises. The future of UK Motors, Larke Hoskins, Brysons, York, Winterbottoms, Lanes, Faulls, to name a few of the bigger players, plus a multitude of smaller suburban operations, was all to change.

But, amazingly, as Abell and Kay toured the country during August, the Dealer Principals were told that:
"Leyland is in Australia to stay".
"P76 is continuing"
"Sales Promotion and Advertising is being stepped up in no uncertain way"

Yep, "promise the dealers anything to retain their involvement and interest" indeed!

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Episode 32

The Industries Assistance Commission (IAC), in releasing its report, found that the Australian motor vehicle market supports about four times as many body stamping and engine manufacturing plants, twice as many transmission and axle plants, and twice as many vehicle assembly plants as would be compatible with an efficient industry structure.

It was found that this situation had arisen because of Government assistance to the local industry of the form of high tariff on imports and concessions attached to local content plans. Indeed, the tariff foregone by the way of concessions had not led to the production of cheaper vehicles at all, but rather, had led to a tax payer funded local manufacturing industry of reduced efficiency.

Local content plans were supposed to allow manufacturers to import components at concessional duty rates in exchange for a specified level of local content – there being a range of plans from 45% to 95%, with volume limits on each (except the 95%).

The effect of this was that assemblers produced a proliferation of models at low volumes rather than a high volume of fewer models. This had a flow on effect to suppliers who would be faced with short production runs and also, manufacturers would seek local components from more than one supplier.

One of the major recommendations of the Commission was to therefore scrap local content plans all together. This was particularly unfortunate for Leyland because they had invested so heavily in it.

The import tariff rate for most of the mid-sixties to mid-seventies was 45% for assembled motor cars, and 35% for unassembled cars and components. In 1973, these rates were reduced to 33.57% and 26.25% respectively. The Commission recommended that a simpler system be introduced being a flat rate of 25% for both assembled vehicles and components.

These were shocking figures and the Government proposed that they would be introduced in a

Leyoors

gradual manner over a period of about 7 years.

The alternative was to increase the tariff to 50% and provide even more local assistance which was contrary to the Government's desire to have an efficient motor vehicle industry.

The most important result of these recommendation was that "in the medium car market not more than three local manufacturers with a high local content could operate profitably." For the light car market, it was seen that a substantial part of this market would be served by Japanese imports.

The Commission concluded that over the next decade, as a result of the phasing out of uneconomic sections of the industry would result in the elimination of about 15,000 jobs. But, they said, during that time, some 13,000 new jobs would be created due to "natural growth in those sectors of the industry which are expected to remain".

The Commission recognised that its recommendations would result in "some disruption" and that some "adjustment assistance" measures would be available to both employees and firms in the industry.

So, with the above being a somewhat condensed view of the Government's take on the local automotive industry, and with Leyland Australia operating at a loss and having just spent some $20M on designing a new large car in a market to be dominated by small cars, and Stokes with his back to the wall in UK, it is little wonder that Abell (who had made it known that felt Leyland Australia had no business manufacturing locally designed cars), made the decision to cease manufacture at Waterloo. Despite what we all might think about him, Abell was the right person in the right place at the right time for the local company on so many fronts.

Here is an interesting picture which I think sums it up in a way. It shows the P76 wagon alongside the V8 Austin 1800 at what looks like the Moorebank soak area. Given the wagon is there, it must be dated 1974 and I've often wondered what were these cars (and especially the V8) doing at Moorebank – miles away from Waterloo. I think now that they were probably hidden there on purpose lest they gain unnecessary and unwanted attention.

Leyears

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Episode 33

While Abell and the executive management were juggling the future of the company, you might be wondering what was happening in Product Engineering? We left Graham Hardy back in June undertaking a review of the activities in the Sheet Metal plant (SMBD) and he's spent the last two months there with his task force. He wrote up his findings in a 43 page report which was eventually issued during September. I am attaching some selected paragraphs from this most interesting document. You will see that Hardy blames the inconsistent and poor build of the P76 on everything ranging from maintenance of the jigs, operator skill and attitude, storage of checking media, layout of the line on the shop floor – but nowhere does he mention that there could be a more fundamental problem.

SMBD had been building bodies for years and were still current with Mini, Moke, Marina and there was no need for a task force for those models. In my view, Hardy's body design for P76 was over-ambitious. A large car with a minimum of panels was the goal, but entirely untested for mass production. Hardy had no experience at this scale and expected every component to be made perfectly and so fit together without any major problems.

Now, if you've ever manufactured anything using a machine tool, you will find that it is easier to make a round part compared to a rectangular part. The hardest thing in the world is to actually make a cube of dimensional accuracy and it is no accident that the first thing a BMC apprentice did in the training school was to file a flat surface on a metal block. Every first year engineering student at a technical college does the exact same exercise. Hardy, or perhaps it was Pressed Steel Fisher (them of vast experience) appeared not to have taken into account that mating square or flat surfaces are difficult to deal with and there was no sympathy for making a forgiving build sequence or shape. Now, you might disagree, but like I said, there weren't any problem like this happening with the other cars.

Curiously, Ron Moss was plant manager at this point and when I asked him about Hardy's task force, he was not aware of it. Hardy even mentions in his report that his work was made all the more difficult because he had to check all these details while production was going on around him at the same time.

You will remember we had some discussion about the sill plates. We will see later that these sill plates and the dust sealing and water leaks were figuring largely in the upper management's pitch to dealers to keep going with the car.

Next week, we'll have a look at what Barry Anderson was doing with the P82. He must have had an inkling that this car was not going into production in Australia, so he started preparing a comprehensive status report which was to serve as a sales pitch for Rover in case they wanted to pick it up.

The music was coming to an end, and people starting to anxiously think about their futures…

Leyland

Problems of inaccurate build are constantly evident on our assembly line, which are simply due to poor performance by some operators.

Many of our operators are obviously of a far higher calibre than others. They adhere to instruction on the method of loading the jig and to the sequence and spacing of spotwelding, etc.

On the other hand, however, we have some workers who could not careless. They repeatedly leave clamps undone and handle the weld guns carelessly.

Thus, our line supervision has a very big part to play in our production line quality, in seeing that the poor operators are used only where they can do the least harm.

We are doing whatever we can to alleviate difficult methods --- changing methods of clamping, improving gun access, etc., but there is a clear necessity for urgent updating and issuing of clear and concise planning instruction sheets, with illustrations which set out spotweld instructions, in accordance with the Product Engineering specifications for the use of Leading Hands, Foremen and Inspectors.

As a means of keeping a close check on the function of assembly equipment, I suggest that it should be the responsibility of a leading hand to work systematically through the equipment under his control by taking over from the operator, say once a day, and actually assembling one unit. In this way he would be personally aware of obvious problems and be able to draw Product Quality attention to the need for maintenance.

No provision was made for easy removal and re-installation of the P76 Body Side Assembly 'Gate' Fixtures on the mezzanine floor. As regular maintenance is essential in future a special transporter truck for these fixtures has been submitted for sanction by management.

The very close proximity of much of our assembly jigs and welding gear is the cause very often for rapid deterioration of clamps and location pins. This factor alone is good reason why constant maintenance is vital to continued good quality.

Too often, we are faced with a line full of cars which exhibit a fault due to poor maintenance of our equipment which has resulted in a breadown.

More frequently however we have the situation where gradual deterioration of jigs, weld guns etc. does not become evident until the accurary of assembly becomes so bad that it is noticed because of some malfunction or misfit.

Leyland

The Front Fenders to Body Front Lower Inner and Outer Panels jig was checked using suitably checked and gridded components.

The base of the jig was bowed and warped to the extents that any attempt to do dimensional checks from the base was unsuccessful.

The locations and clamps were adjusted to give the best alignment we could achieve of the gridded panels.

Fender pressings were found to be inconsistent in the vertical dimension of the leading face and tooling was adjusted.

The Roof Bows were being assembled and screwed in place immediately after the initial tacking of the roof.

This was the cause of intermittant cases of ghosting of the metal to metal adhesive areas, so action has been taken to alter the assembly sequence to readjust the bows after the roof is roller welded.

At a further stage (31/7/74) it was found that a faulty assembly in the Dash & Front End to Underbody was occurring due to errors in this assembly. Checks of the component panel pressings showed that the blanks were moving in the form die so the use of locating pins on the assembly jig was discarded in favour of form locations and clamps at the dash abutment surface.

Leyland

A female operator is used on this spot - weld jig. Her method of achieving an assembly was <u>not</u> as the job was intended and the resultant product was inaccurate and inconsistent.

The weld gun is designed to be inverted during the welding sequence so that all welds can be made with clamps properly engaged.

In fact, the female operator having gone through the motions of loading the jig, does 2 or 3 spots then takes the job out of the jig and completes the welding using the gun in its original suspended attitude, the assembly being uncontrolled.

The Roof Panel location was checked using a gridded panel in reference to grid checks on special Body Sides. This showed that the Roof Panel was located too far rearward on the body.

Maintenance of Assembly Equipment.

Added to the fact that P76 Production was set in motion without benefit of a proper Engineering Build from Approved Samples, the two major problems encountered in this exercise are:

(1) The deterioration of the equipment due to lack of maintenance.

(2) Ad-hoc changes which had been made to the build by unauthorized personnel without reference to the Production Engineers.

In my Interim Report to you on Task Force recommendations for continued quality of body build, I suggested that a special area be set aside for the storage of our checking media.

The sanction for such an area (the unused Press Pit in MS & BP) has been initiated by Mr. Geoff Mortimer but is held pending final decision on the use of that area.

In addition, an essential phase of our Task Force Engineering Build work is to leave with Product Quality MS & BP, a set of Master Assemblies which have been built in the jigs in their latest modified form.

These assemblies must have major grid references marked on them for use in future checking and rectification of the locations on the jig from which they originated.

I have discussed this matter with Mr. Jim Dodson. He is in full agreement with the proposal but emphasises the need for storage space for such a large number of panel assemblies which must be readily available at any time and must be updated continually in accordance with changes to specification. The major obstruction to having the use of the Press Pit in MS & BP, appears to be the reopening of the floor and erection of safety railing around the opening.

There is an obvious need for operator training, before they have attained a sufficiently high level of skill to be entrusted with the jobs of spot welding, arcwelding, lead loading, brazing and metal finishing.

Frequent changeover of process workers, and the problems of communication due to language difficulties, highlight the necessity of concise grahic instruction at each assembly site.

Leyland

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Episode 34

My post of last week has no doubt raised some criticism from ex-factory staff and so I've been thinking over the weekend of some additional examples to illustrate what I am trying to say.

Just for some historical perspective, in the 1950s and 60s, the main function of Product Engineering was to essentially modify UK-designed cars into those which would be durable under Australian driving conditions, and to also develop the required local content to meet Government regulations.

With respect to the people involved directly in the eventual design of the P76, Barry Anderson had been hired in those times as a fresh engineering cadet "Test Engineer" in Experimental and had no prior experience in the motor vehicle industry. In the late 60s, Anderson was appointed to the P76 project and was responsible for the mechanical side of the P76 – engine, transmission, rear axle, suspension, steering, and so on.

Graham Hardy was recruited to BMC by Reg Fulford in the 1950s, both of them coming from GMH. Hardy's position at BMC was that of "Body Design Engineer" under Chief Design Engineer Hamilton who in turn reported to Chief Product Engineer Serjeantson. This section of Product Engineering was responsible for sheet metal work, styling, and trim as applied to Australianised versions of UK cars – the local content portions and detailed modifications arising out of durability testing. Such work involved modifications to UK body designs such as grilles, bumpers, body stiffeners etc.

Prior to the P76 program, as far as a complete body design is concerned, the closest thing that these departments came to designing an actual body was the Austin 1800 utility. For now, I am wanting to illustrate two examples of the underlying problem of the P76 build from the mechanical side of things as an extra dimension to the body side which has been commented upon previously.

The first example is the brake line banjo fitting on the disc brake calliper. Now, "someone" – it doesn't matter who, but ultimately Anderson's responsibility, thought it would be a good idea to drill a through-hole – completely through to the other side, for fluid passage rather than a more commonly drilled hole through one side only. See picture below. I suppose it would have been cheaper to do this since less precise control would be needed during manufacture. As well, an undercut was put under the head around this hole to allow passage of fluid from the brake line through to the bolt interior. What the designer did not account for was that although he might have calculated the necessary stresses and factors of safety at the recommended tightening torque, the unfortunate omission was that in the field, an enthusiastic mechanic was often found to overtighten this bolt in an attempt to cure leaks at this joint and shear the head off – it being weakened by both the through hole and the undercut. This bolt was the subject of an expensive recall campaign, but even then, the "new" design (see other picture below) still had the undercut, the existence of a passage for fuel in the banjo fitting itself (which wasn't subject to the same torque loading as the bolt) somehow being overlooked or not understood.

The next example is the short handbrake cable. This cable was carefully designed by some engineer and had crimped ends as shown below. Failures were soon apparent and in one case, in New Zealand, a handbrake failed and the car rolled away and crashed into another car. An urgent interim

Leycars

fix was decreed where the ends of the crimped part were splayed and filled with solder. A new cable was designed with a crimped eyelet – but, dear readers, such was the lack of confidence in this new design that each cable had to be proof tested (100%) and then, every morning, midday, and afternoon, a sample cable from production had to be taken to the laboratory for creep testing. Can you imagine the cost? What's worse, when first produced, the engineer at Consolidated Wire (who made these cables) told BMC that this cable would fail but that advice was ignored.

No wonder warranty claims were three times their initial estimate.

These are just two (of many) design deficiencies while although no doubt being correctly designed according to "the book" failed to take into account actual usage in the field – where customers would wrench the handbrake on, or a mechanic would over tighten a bolt. Readers, there are many such examples all involving a theoretically designed car being put in the hands of other people who did whatever they wanted to it. The unsympathetic build of the car – from body to mechanicals, led to a profusion of problems which sometimes compounded as one problem led to another that didn't exist before.

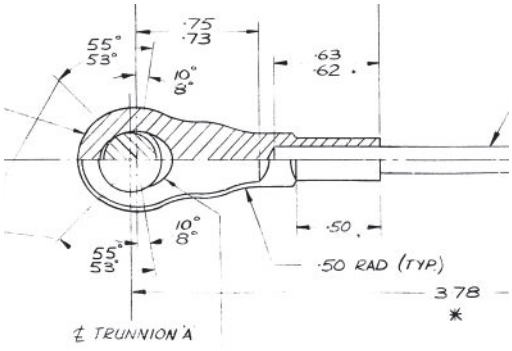
It is these "subtleties" of design that Peter Burden was referring to and both Anderson and Hardy (nor Beech or Abbott), no matter how full of potential they were, did not have than depth of experience to recognise these types of second order issues during the design phase – none of them never had previously been responsible for the design of a complete motor car, and especially one for mass production.

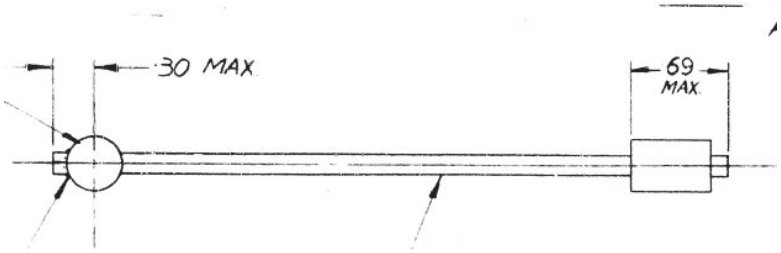
Compare with a Mini. When first introduced, the only real body related problem was a water leak at the toeboard whose joint with the floor was joggled and overlapped in the wrong direction. Yes there were mechanical issues, but for a brand new front wheel drive vehicle of a style never before manufactured by BMC, the car was remarkably well designed from the start and remained in production for years with little modification. A P76, with conventional mechanicals, using "industry standard" components, and a completely new and untried body was nowhere near as robust in its execution.

It seems to me that Stokes had a feeling for this even though he was up to his eyeballs with other more important problems. Stokes writes to Beech to say that he thinks the Australian team is not making full use of the experience of the UK engineers and asked Beech for regular updates which he forwarded to his guys for comment. After about three "updates" and responses, Beech more or less said to Stokes to stop asking stupid questions and let his team get on with the job. Perhaps the questions were not so stupid after all.

PS as a somewhat amusing appendage to the above, I checked the drawings for all these components and the "Checked" and "Approved" signatures for the original handbrake cable have been whited out!

Leyland





TEST PROCEDURE:—

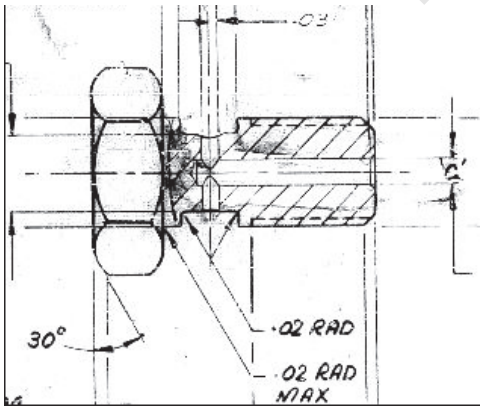
LOADS TO BE APPLIED THROUGH TRUNNIONS A & B. TRUNNION C SHOULD FIT BETWEEN TWO PLATES ·10 THICK ·19 APART & HAVING ·410/·405 DIA HOLES

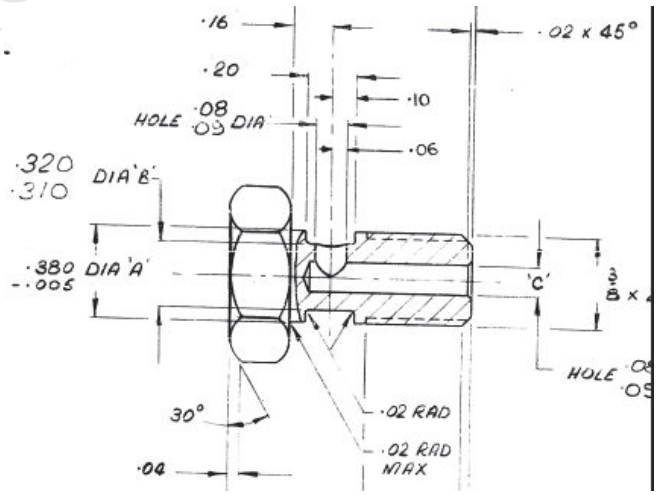
100% PROOF LOAD CABLE ASSYS TO 1000 LB

ADDITIONALLY ONE SAMPLE TO BE TAKEN FROM THE BE-GINNING, MIDDLE AND END OF EACH DAYS PRODUCTION, AND TESTED AS FOLLOWS:

A) ASSY TO BE LOADED TO 1000 LB AND HELD FOR 12 MIN., A MAX CREEP OF ·0015 TO BE ALLOWED

B) AFTER TEST 'A' BREAKING LOAD OF ASSY TO BE 1500LB MIN.





Leyears

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Episode 35

We'll leave Graham Hardy's investigation in the Sheet Metal and Body Division and now cross over to the Advanced Model Group and see what Barry Anderson has been up to. With P76 all but finished as far as design work was concerned, Anderson's main focus during 1974 was Model A, or P82. I wasn't able to get a clear answer from Barry as to where the "82" came from, so this remains a mystery. The main purpose of this model is shown in the summary below. The most exciting thing about the mechanical specifications being the V6 engine.

Body-wise, there were to be four variants: Compact, Van, Saloon and Coupe. These would be differentiated by rear panels and nose piece. The variations would result in two wheelbases, two front overhangs, two rear overhangs, three distinct profiles but with a high degree of commonality. Trim quality and a range of engines would further distinguish the models.

The compact model was to eventually replace Mini, and 6,500 units per year were envisaged. The Saloon was to replace four door Marina, and would have a projected 10,000 units per year. The Coupe would replace Marina Coupe with 6,500 per year (significantly higher than Marina Coupe), and Van, with an estimated 2000 per year. Overall, it was thought that a total of 25,000 per year would be achievable.

It was recognised that styling would take on a significantly more important role in the overall program compared to the P76 (Model B) due to the commonality of body panels and the relationship with market acceptance in each category. For example, the coupe, would not be so attractive to its target younger buyers if it looked too much like the Van. Accordingly, it was proposed that the only way to make sure the whole thing was a success was to develop full sized clay models. One set of models would be prepared by the "in house" stylist (Cassarchis), and the other set submitted by one "European" stylist (Michelotti).

Now, this was quite important because this would be the first time that the Australian styling studio would be making a full-sized clay model of a complete motor vehicle. Quite an investment, and quite a compliment to the skills of the local styling studio team.

The proposal to UK for final approval would be the winning full-sized styling model (from either Cassarchis or Michelotti), and a mechanical prototype (a Marina) fitted with P82 running gear. Development to this point would be budgeted at $500,000 (of which $950 would be "tea money"!), $19,000 travel and entertainment, $28,000 freight if styling models and mechanical prototype to UK), and the remainder budgeted out to Technicians and Draftsmen, Consumables, Research and Development, Product Planning, Vehicle Proving, and $77,000 for Contingencies (to be spent only on the approval of Mr Beech).

Should approval go ahead, then the budget for tooling to body-in-white (the main expense) was to be some $10M.

Now, I know I've shown some of these pictures in past years on this page, but worth having another look to remind ourselves of what was being sent to the two styling contenders to work from. (see sketches below).

Leyland

Interestingly, the design brief specified that the body margins would now be 4mm (5/32) (smaller than P76 at 4.7mm (3/16) but this was crossed out and 6mm (1/4”) written in by hand and this would include the doors (which were a massive 5/16 (8mm) on P76).

A long list of interior appointments for each variant was drawn up, the overall task being that the facia panel would be modular in the sense that it could be progressively built on (not substituted, but added) for series differentiation.

The whole thing sounded very well thought out, and there were obviously some lessons learned from the Model B experience. For example, a forward hinged bonnet was proposed by Anderson for P82, but, he says “This feature has servicing and engineering advantages and we should retain it to promote a common theme with P76. However, if it is a mistake on P76, we should admit it and not repeat the mistake on P82”. One exciting proposal was the provision of ultra-violet instrument panel lighting on the Executive model.

The above was written in Nov 1973, and the next report is dated 25th September 1974. During the preceding year, work had progressed on the mechanical side of things (which we will come to in a week or two) and both Cassarchis and Michelotti had prepared their submissions. Michelotti constructed 5 sets of ¼ scale models (not sure what happened to the full scale model idea), and Cassarchis, three full-scale models.

The colour photo below shows Signor Michelotti with our very own John Kay (Director of Sales) who was evidently visiting Turin (on that travel and entertainment budget). The grey scale photo is one of Cassarchis’ models.

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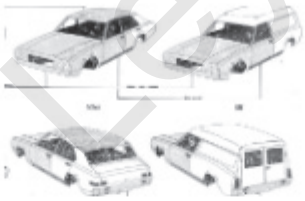
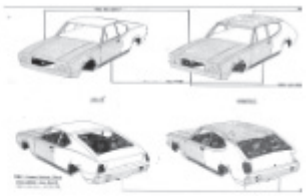
Next week, we’ll find out who won the contest and why.

Timeline photos



Timeline photos



Timeline photos

Timeline photos

Leycars

6. To achieve these main objectives, the following individual objectives have been set:

(i) To build on the market base of Mini and Marina saloons.

(ii) To extend the market appeal by replacing the unsuccessful Marina coupe with a high style coupe.

(iii) To provide a van version which will appeal strongly to the developing tertiary industries.

(iv) To further extend the market appeal by the addition of V6 engined versions and a third "Executive" trim quality on saloon and coupe.

(v) To package from the outset the 1300 "A" series power units for the low cost "compact" end of the range.

(vi) To achieve the above product lines with the maximum of component commonisation within the line itself, and with other indigenous Australian products.

(vii) To minimise unit economic costs by producing sheet metal parts in Australia, thus allowing some high cost mechanical assemblies to be imported, while remaining within "local content" regulations

(viii) To achieve 85% local content initially with the ability to increase or decrease this percentage quickly to respond to market demand and government action.

(ix) To provide staggered introduction dates for the various "versions" of the model line to reduce the peak of pre-production workload.

Leyland

BROAD OBJECTS OF PROGRAMME

1. For fifteen years it has been generally agreed that this company should produce only two basic "models", one in the light market sector and one in the medium market sector. Studies published as long ago as 1960 have emphasized the desirability of this general policy.

2. This policy was again seen as highly desirable in 1967, when the preliminary study which produced P76 was conducted. At that stage company resources did not permit two all new models to be introduced simultaneously, and so Mini was continued and Marina introduced.

3. The company is now in a position to implement the long desired "two car" policy and P82 will be the entry in the "light" market sector to complement P76's efforts in the "medium" sector.

4. The primary objective of P82, is then, to provide this company with a product which:

   (a) Is profitable under indigenous manufacturing conditions.

   (b) Complements P76 in the Australian market.

   (c) Has sufficient product/manufacturing flexibility, together with P76 to enable the company to respond quickly to general market trends and maximise overall plant volume.

5. Secondary objectives are:

   (a) To provide a product range which can be sold C.B.U. or C.K.D. in Australia's export territories alongside U.K. built or derived products without being restricted by the latter's selling prices.

   (b) To allow the company's pre-production facilities to be concentrated on a rationalised model range at a time when legal requirements are placing an ever increasing load on all these departments.

Leyears

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Episode 36

The P82 was very much Barry Anderson's baby. Graham Hardy seems to never appear in the reports and was perhaps too busy with the P76 task force. Phase 1 of the program (styling and mechanical prototype) had been approved with a $5M budget back in Nov 1973. We saw last week that Cassarchis and Michelotti had submitted styling proposals and these were now being examined.

In September 1974, Anderson writes: “Five sets of renderings in 1/4 scale were submitted by Michelotti. He has progressed the selected theme in 1/4 scale models to completion for low-line and high-line saloon and is proceeding with 1/4 scale models of Coupe and Compact. He has completed initial full scale skin lines of the Saloons. Michelotti has worked accurately within the Styling Terms of Reference. The local stylist has progressed three full size models in clay. Some minor alterations are required to bring them in line with the Styling Terms of Reference and they are not yet painted.”

Now, look at the language dear Readers. Michelotti gets four lines of text, and the “local stylist” only two. The report shows Michelotti’s submissions as colour photographs, while Cassarchis (sorry, “the local stylist”) gets his models shown in black and white. The reference to “worked accurately within the Styling Terms of Reference” says a lot. These Terms were written by Anderson and he (Anderson) would have been quite gratified to have a world-renown stylist (Michelotti) follow his instructions to the letter whereas the local guy had the audacity to wander – plus, to top it off, the local models weren’t painted! It’s clear that Cassarchis’s efforts were nothing more than “due diligence” and Anderson had no intention of going with the “local stylist”. No matter what Cassarchis might have come up with, he was up against what was essentially “snob appeal” and for Anderson, that meant a great deal, especially since Beech had gone from the picture. Anderson still remembers the time when Michelotti contacted him to respectfully ask if the spare wheel could be moved over ½”. This elevates Anderson in a way that Cassarchis could never do. The story is that although Michelotti’s proposals were to be accepted, no one told Cassarchis until some months had passed and the factory had been shut (perhaps David Hardy could give us more details here).

Now, mechanically, the P82 had several unusual features – one of which was the ability to accept engines from 1300 A series, 1500 E series, 1750 E series, 2620 E series, 3310 V6 and also 4400 V8 most of which would have manual or BW automatic options. Now readers, you might wonder why so many options?

The P82 was considered to be a “low-investment pathway” to volume for the local company in Australia. The two model policy Model A and Model B would cover the range from small to large cars – and in Australia, at this time, large cars were king hence P76 was done first. However, it is not often realised that Anderson and Beech also had their eyes on the volume UK market for P82 and there are subtle hints appearing from time to time in the reports “should such a program be considered in UK, the advantages of low investment…etc etc”. Here we have the Australian’s hinting to UK that their problems with lack of forward volume models could be solved by the P82 should they be so disposed to take it on. The different body styles of P82 appealing to different market segments meant that UK could virtually put any engine they liked in it. But, dear Reader, the compromises! The photo below shows the under-bonnet view of the mechanical engineering prototype. I would like to draw your attention to two items – the brake master cylinder and the steering rack.

Because the engine bay had to be made as flexible as possible for the variety of engine fitment, the steering system had to be put hard up against the dash panel and with the minimum of intrusion into the engine accommodation. No unsightly and inconvenient steering shafts permitted. If you look carefully, you can see the rack, rigidly mounted, with the pinion to the left of the picture and with the rack end connecting to a pivoting link, the lower end of which carries tie rods, high up, to pressed steel steering levers on the Macpherson struts just below the springs. Well, I have to say I’ve never seen anything like it, but it was all designed and drawn up as shown. What I find a little alarming is that the steering is dependent on the integrity of the mounting of the rack at the pinion end (at the dash panel) and the pivot point (mounted further along the dash panel) so that if there is any change

Leyland

in this dimension (say buckling of the sheet metal dash panel in an accident or even body flexing on rough roads) then the steering would be very much affected. Yes, a Mini also has the rack bolted up against the toeboard, but at least the steering isn't so dependent on the vagaries of the dash panel, and the ends of the rack connect directly to forged steering arms at the hub – not pressed levers up under the spring.

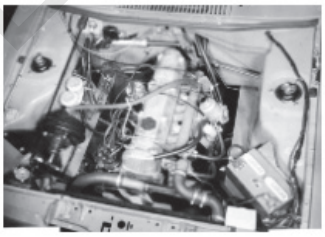
Because the steering rack was up there at the top, there was no place to put the brake master cylinder on the dash panel and so this was moved out to the front of the engine bay and connected to the brake pedal by a long metal rod operating in tension. That's it there at the left, the black rod coming out of the dash panel to a lever near the radiator that looks like a bonnet prop rod but which actually operates the vacuum servo unit and master cylinders. Bizarre. Now, I am not an expert in these matters, but you have to wonder what happens in when that rod is unintentionally bent? I suppose in a full frontal collision all the brakes would be locked on – perhaps on purpose?
For both these systems, it would appear that the notion of using "industry standard" designs so loudly touted for P76 had not been followed here.

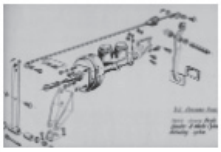
The Status Report giving the detail above was written during September/October 1974 and Anderson would have known that P82 was virtually dead in the water as far as an Australian manufacture was concerned, but since it had already been planned to ship the prototype body and mechanicals to UK anyway, the prospect of a UK take-up of the whole thing took on an unexpected air of urgency.

The body was shipped, along with the V6 engine strapped to the passenger seat position, and Anderson followed. He spent a week or two in UK presenting the proposal to the folks at Rover (not sure why Birmingham but perhaps Stokes just didn't have the time). By Anderson's account, the talks went very well, but during the middle of all this, there were some personal developments back at home and the idea of moving the family to UK was shelved. Anderson returned to find himself "let go" and took up a position at AWA. As far as I know, the P82 prototype remains in UK although an alloy V6 engine is here in Australia and by the look of it, could be easily returned to working condition

Timeline photos

Timeline photos


Timeline photos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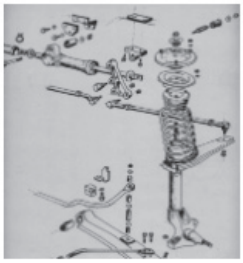
Timeline photos

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Episode 37

In late 1974, it was proposed that a special version of the SD1 for Australian and New Zealand markets would be developed. This car would be locally assembled in New Zealand at Nelson to take advantage of the reciprocal local content rules between the two countries. The SD1 would replace

Triumph 2000/2500 and Rover 3500 in both countries Australian engineer Ray Habgood had to assess the engineering feasibility.

The Australian Design Rules, which covered safety items and also emission control, were significant factors to be considered. The whole idea would be to capitalize on the investment in the P76 power unit, commonality of spare parts and servicing and so on. Sounded like a good idea.

Two models would be offered, a “high line” model with the 4.4L V8, and a “low line” model with the E6. Offering the standard Rover 3.5L V8 in both models would not be considered since it would be seen to restrict the differentiation between the high line and low line models, and the Rover 6 cylinder engine (2.3L, 2.6L) was not being developed for our emission control regulations. The transmissions would be model 77 Rover/Triumph 5 speed manual or BW 35 automatic, and a derivative of the BW model 78 rear axle as fitted to P76.

Habgood found that to fit the Australian V8 engine and maintain an acceptable propeller shaft geometry, it would be necessary to relocate the engine with modified engine mounting brackets, propeller shaft and cooling fan mounting – which would reduce the ground clearance by 10 mm. The bonnet would require a bulge for the E6 camshaft cover and the Australian V8 air cleaner – to be accomplished by a “re-hit” to the existing bonnet.

All the development work would be done by Rover/Triumph in UK. The Australian company would take care of the emissions work (there was an emissions testing lab at Moorebank) and would supply power units to Rover for the prototype build.

By September 1974, some 3,700 hours had been expended on the design work with another 1,300 hours to bring the project to the point of a running prototype. A further 13,700 hours would be needed to complete the project to production ready status.

The graph below shows the predicted performance of the proposed models compared to the standard Rover 3500 V8. (For those interested, the way in which these predicted performance figures are calculated is shown in my BMC Engineering Companion). Amazingly, the Rover 3500 fitment shows a much higher top speed and also better acceleration – developing an indicated 165 BHP compared to the Australian 4.4L at 127 BHP – but note the engine speeds. The Rover unit develops maximum power at 5,500 rpm with the Australian 4.4L at 3,700 rpm which would account for this.

I only have one report (1974) for this proposal and so I would assume that the prototype was never built, but it certainly would have been an interesting exercise. As far as I know, the E6 tooling from Australia went to South Africa for use in their six cylinder SD1.

Edit: The Development Report was prepared by Australian engineer Habgood on a visit to the Fltechamstead North/Solihull Engineering Department, NVP Development Section 1974.

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MODEL	LOW LINE				HIGH LINE	
ENGINE TRANSMISSION	E6 MANUAL	Tr 146 MANUAL	E6 AUTO	Tr 146 AUTO	LEYLAND V8 AUTO	ROVER V8 AUTO
Engine Cap. (litres)	2.6	2.3	2.6	2.3	4.4	3.5
Max Power (BHP)	100***	112*	100*	112*	127***	165
@ rpm	4,600	5,000	4,600	5,000	3,700	5,500
Max Torque (ft lb)	140***	135*	140*	135*	224*	210
@ rpm	2,000	4,000	2,000	4,000	2,250	2,750
Final Drive Ratio	3.89	3.45	3.89	3.45	2.92	3.08
Test Weight (lb)	3250	3130**	3250	3123**	3382	3320
Max. Speed (mph)	107	112	100	107	110	125
Std. ¼ mile (secs)	19.2	18.3	19.7	19.6	18.0	17.2
Acc. from Rest (secs)						
0 - 30mph	4.0	3.4	4.4	4.8	3.5	3.5
0 - 40	6.4	5.7	6.8	6.9	5.3	5.1
0 - 50	9.4	8.0	9.9	9.8	7.7	6.9
0 - 60	12.9	11.4	13.8	13.4	10.7	9.3
0 - 70	17.6	15.2	19.0	17.7	14.5	12.2
0 - 80	23.9	20.2	26.1	24.1	19.5	15.7
0 - 90	32.8	27.9	37.5	33.1	26.3	20.1
0 - 100	49.4	38.6	-	48.7	37.3	26.8
Acc. in Top Gear (4th for man)-(secs)						
20 - 40mph	7.8	-	7.2	7.4	4.8	5.0
30 - 50	8.1	10.8	8.4	8.9	5.7	6.0
40 - 60	8.7	11.1	9.2	10.7	6.8	7.0
50 - 70	9.7	11.6	10.4	12.2	7.9	7.8
60 - 80	11.4	12.3	12.7	13.6	9.3	8.6
70 - 90	15.2	14.0	18.5	16.2	11.8	9.9
80 - 100	25.5	18.2	34.6	24.6	17.8	12.2
Acc. in 5th Gear (secs)						
30 - 50	10.4	15.0				
40 - 60	11.2	15.4				
50 - 70	12.5	16.9				
60 - 80	14.7	19.3				
70 - 90	18.8	22.8				
80 - 100	30.1	30.4				

* Estimated power and torque figures.

** Based on out of date weight estimates.

*** Ref. graphs P10/G 228 and P10/G 230

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Episode 38

In New Zealand, British Leyland held a 15% interest in the New Zealand Motor Corporation. By December 1973, CKD packs for both Marina and P76 were being sent there. P76 was being assembled at Petone near Wellington. The situation in Australia was bad enough with unanticipated service issues for P76, but in New Zealand, the things were dire.

It was found that packs coming from Australia were short (not only for P76 but also Marina). It would appear that the shortages were not just mistakes, but deliberate, as if the Australian Company wanted to make a good showing of the number exported at this critical time, even though those cars could not be completed. Worse, panels were not being packed well with bonnets and doors stacked side by side without any protection from each other.

Service problems being experienced in Australia were also surfacing in New Zealand. Bruce Elson was to spend two weeks visiting area offices and dealers to go over the problems with them. It turns out that Elson arrived some two weeks after the official closure announcement (which was to come in early October – but we are jumping ahead a little here). But no one had officially told NZMC what was happening! They were hearing all kinds of rumours and reading about the situation in the press to the effect that the factory had in fact closed down. After a hasty phone call back to Ian Showan in Sydney ("What do I tell them?"), Elson reassured them that "Leyland Australia was not ceasing operations completely, but were only reorganising." As well, as you can see from the letter below, no one thought to mention to the New Zealand company that there was an extended warranty being offered by the Australian factory, this was also through the grape vine and they wanted to know if it covered their cars.

By the time of Elson's visit, some 140 P76 vehicles had been assembled with another 460 underway. But, customer – and even dealer, acceptance was not encouraging. After initial rectification of the first car delivered to Vining and Scott (in Nelson), Mr Vining writes of the P76:

> "This vehicle has been on display in our Motueka Branch showroom where its general condition caused such an unfavourable comment that it has been necessary to withdraw the vehicle for further rectification repair. Defects which have now developed are door sealing rubbers poorly fitted, a section of the right rear door rubber now completely detached and hanging loose. Black overspray on inside left rear door window frame, signal switch lever rusting – an inspection showing that this is mainly bare unpainted metal. Rust developing on wiper fittings, rear bumper bar rusting – an inspection showing that the chrome is pitifully thin, tools in boot rusting (due to water leak into the boot), rust stains working out from under bonnet inner panel and showing up on other seams in the engine compartment in the grille area. Rust developing on unpainted chassis components. Also subject to severe criticism was the extremely roughly finished inner front guard side panels…."

Mr Vining then lists a number of recurring defects on the other cars sent to him: radiator hoses incorrectly fitted, engine oil level low, starter isolating switch incorrectly adjusted, too much voltage drop from ignition switch to starter solenoid, poor idling, rattling mufflers, pronounced rattles and creaks in rear axle pivot arms due to bolts being left slack, wiper operational faults, bonnet safety catches usually inoperative, poorly fitting doors and inoperative locks, hinges dry and usually seized, poorly fitted glovebox lids, dash rattles, wiring cables generally left hanging loose, stiff window

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regulators, window guides become detached from the glass, headlights incorrectly adjusted, plastic adjustment screws broken or missing, Leyland grille badges loose and rattling, front and rear windscreen surrounds loose and sometimes detached. All this required considerable labour to rectify.

Now, these were CKD vehicles and so many of the problems above were arising from final assembly at Petone – but Vining didn't care where the cars came from, only that he had to present them for sale and he wasn't happy. Unlike Victoria Park, there was no dedicated "pre-shipment inspection line" and the much-vaunted Buyer Protection Plan only covered vehicles used and serviced within Australia. I don't know if NZ had their own equivalent.

Originally planned for two weeks, Elson's visit was extended another four days at Petone to instruct the NZ Service School on the matter of body sealing – by then, the New Zealand company's main source of complaints. Elson provided them with the official 32-page water and dust sealing manual and conducted a one-day course on water and dust sealing. In other words, dealers were shown how to virtually dismantle the interior to apply the sealing compounds before putting the car onto the showroom floor.

Not only was P76 a problem, but Marina was also suffering at Newmarket mainly due to pack shortages. A portion of Elson's report is shown below. Peter Davis was subsequently dispatched to make a list of what needed to be sent (I think John Lindsay might also have been involved in this).

At this time, the plant at Nelson was beginning to assemble Rover SD1 (Edit, Rover 3500) which was intended to be exported to Australia. These cars came CKD from UK and the complicated export arrangements took advantage of the free trade agreement between NZ and Australia.

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NEW ZEALAND MOTOR CORPORATION LIMITED
HEAD OFFICE

Telephone: 554-039
Telex: 3432
P.O. Box 2599
Address: 89 Courtenay Place, Wellingto

In reply please quote: 7.89

21 October 1974

Mr B. A. Elson,
Field Service Manager,
Leyland Australia,
P.O.BOX 6,
Waterloo,
N.S.W. 2017,
AUSTRALIA.

Dear Bruce,

P.76 - WARRANTY

We have heard that in Australia a two year, 40,000 kilometre warranty is being offered on P.76 in respect of engine and transmission chain.

As you will be visiting us next week, this will be one of the questions raised and I would appreciate your investigations into this area and the extension of the warranty to New Zealand sold P.76 vehicles.

I have copied this letter to Norman Prescott as no doubt this question will have to be discussed with him.

I am looking forward to meeting you again.

Kind regards,

Yours sincerely,

K. D. Green
NZ SERVICE MANAGER
CARS & LCV'S

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This Plant is currently assembling UK Marina and 1100/1300 models. Basically their involvement in Australian sourced vehicles has ceased but, unfortunately, they still have approximately 150 incomplete YDO 25 Marinas. These vehicles are now stored at the old British Leyland Truck Assembly plant in Carbine Road, Auckland and are being finished off depending on the necessary shortage items being available.

The main areas of material shortage are still 6 cylinder engine mountings and their fixing brackets, numerous stainless steel trim items such as guard moulds, door moulds, front and rear screen moulds.

Unfortunately, due to their unfinished state the remaining vehicles have been shipped around from numerous locations due to the lack of storage facilities at the Newmarket Plant. Originally they were stored under cover at the Auckland Showground but in later months they have been stored in the open at the back of Carbine Road, with Polythene sheets stuck down over the front and rear windows. This has resulted in paintwork damage where the tape has stuck to the body. There is also another problem which is making the situation even worse and that is since the introduction of the new sales tax on vehicles the 6 cylinder Marina is a fairly expensive proposition. Unfortunately a large percentage of these incomplete vehicles are 6 cylinder vehicles.

Mr Nev Brennan, the Plant Manager for Newmarket, was extremely vocal on the point of shortages with regard to Australian produced vehicles and could not understand why U.K. sourced vehicles were easier to build from a shortage point of view as opposed to Australian sourced vehicles.

Currently Mr Brennan has one of his general Foremen and 16 line operatives working full time at Carbine Road in an endeavour to complete these vehicles and every assistance should be given to them from our point of view, with regard to material shortages.

I also attach a copy of the programme we have suggested, however, during our initial discussions with Bruce, upon his arrival, any changes to this can be made, as long as the basic itinerary is not disrupted to any marked degree. Internal flights remain Wellington - Nelson - Christchurch - Wellington-Auckland-Wellington.

I think Bruce has been kept reasonably well up to date on our current problems by the Product Defect Reporting system, however, we are particularly concerned at the number of handbrake cable failures, which now totals five and fear the day that a P.76 involves itself in an accident with subsequent injury, which I am sure you will appreciate, would be absolutely disastrous.

As you know, we have already had one case of a P.76 rolling down a hill and sustaining damage to another vehicle, as a result of handbrake cable failure and it does not leave much to the imagination if the P.76 had not been stopped by another vehicle but had run itself into innocent bystanders.

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Episode 39

It's now October 1974. Anderson is preparing his case for continuance of P82 in UK, Hardy has finished his task force report in the sheet metal and body division plant, Moss has improved the body build quality, the wagon and S2 are in abeyance, and Abell is negotiating a deal with the Government – the details of which were not known to anyone else at the factory except perhaps the executive team.

John Kay, Sales Director, knew early what was to come since his role at this important turning point was pivotal to the return to profitability promised by Abell to Stokes in UK. The Company had to change from being a volume manufacturer to what was eventually to be an importer of specialist vehicles. The company would be divided up into four franchise groups:

1. Leyland volume car dealer organisation (Mini and Moke)
2. Specialist car dealer organisation, being an offshoot of the volume car organisation (Jaguar, Rover, Triumph).
3. Cross-country vehicle organisation, again being a combination of our own Truck and Bus retail operations in a number of capital cities with the addition of the majority of rural dealers representing both Range Rover and Land-Rover.
4. Commercial vehicle and tractor franchise being a combination of our own Truck and Bus retail points in capital cities with the addition of one or two volume car dealers in these same cities with most rural volume car dealers representing our truck and tractor range.

The plan to achieve this was divided into three phases.
Phase 1 was to sell off remaining P76 and Marina through the dealer network – who were to be enticed with factory rebates on both wholesale and retail prices. At this point, Kay didn't want the dealers jumping ship because he had plans for about half of them for Phase 2.

Phase 2 would be to design a reduced dealer operation (from 272 dealers to 154). And once this was done, Phase 3 would be how to handle the importation of the specialist cars to the new dealer network.

But there were problems. The existing dealer structure, particularly in Western Australia, was not suitable because of existing arrangements there with Land Rover products. Similar problems arose in other states whose dealers had arrangements with AMI (Triumph). Some distributors, Kay felt, did not have the company focus suitable for specialist cars. He says this of some of them:

In Queensland, "Currently UK Motors is not profitable either as a retailer or as a distributor and there is opposition to a continuation of activities on the part of the York Consolidated Board. The parts operation is profitable and we may have to face a phase out of car. Activities with a consolidation in the parts area. In this case, having examined the alternatives, there seems no option but to establish direct distribution of all products. Rockleigh could be examined as a centre for this activity."

In New South Wales, "Larke Hoskins is a tired organisation, currently unprofitable in its distribution, retailing and parts activities. It is our firm belief that LNC's (Larke Neave and Carter, the holding company) Managing Director Doug Donaldson is keeping them going only in the hope that we will pull out completely and hand over importation and distribution rights for the Leyland product range

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in total."

In Victoria, "Under an agreement made by P J North, Regent Motors were promised Triumph car distribution for Victoria once Leyland Australia had assumed responsibility for the product. In return for this, Regent handed over state distribution for Rover 4-wheel drive vehicles and opened one volume and partial specialist car point in Melbourne. Regent is a subsidiary of Clyde Industries. It is headed by Garth Hosking who is close to retirement and the company is abysmally weak in management. We have come to realise that it is no base for an aggressive Rover-Triumph distribution organisation in Victoria. They are also extremely weak as parts distributors. It is my view that we should offer them a trade-off of total specialist car retail opportunity at their branch and distributor point and undertake direct distribution of these lines. We would also offer them main dealer parts status on all parts lines. Lanes Motors: Currently Lane's is very important to our overall operation with four retail branches and parts distribution through Lapco. Under their Mercedes tie up they cannot handle Jaguar or Rover so their future with us is only through Phase 1, with perhaps a scaled down presence with volume and Triumph cars through Phase- 2. However, Leyland parts through Lapco is vitally important to Lane's and we should continue to nurture this outlet and P & A is anxious to remain with them. Two of Lane's four points are still in our planning for Phase 2." Brentmor Leyland: We have also received a firm indication from this important organisation that they would stay with us in a Phase 2 operation. We are making moves to give them additional specialist representation and they can be totally involved at the beginning of Phase 2 when Triumph can be added to their Northcote branch. Bryson Industries: "The same comments apply as for New South Wales. We would ideally plan for the Bryson Richmond operation to assume full volume and specialist dealer status in return for Victorian state distribution in Phase 2. Brysons would become a direct dealer for all parts."

South Australia: "There is a potential here to develop Bryson to take over all car distribution responsibilities in Phase 2. The local management is the best available to Brysons in Australia and it is the only state in which they have a current volume car involvement. Therefore the potential exists. However, we frankly doubt that this would be the best way to develop and would prefer to see a change of direction which gives us direct distribution of all specialist products and volume lines. At the same time we are anxious to add Triumph parts to our stock at Leyparts. Countering this would be the investment Brysons would have to enter into if they achieved total distributor stat~s in South Australia. Their facilities could not handle a volume of 2,185 planned in Phase 2, nor could we continue a direct distribution operation with a planned volume of 1,496 volume cars. Therefore the only logical solution is to plan for direct distribution of the total throughput. A minor sop for Brysons is that the reduced number of dealers in Phase 2 provides him with greater retail opportunity."

And in WA, "At an early date, we have to create a part-of-the-truth story for Winterbottoms which exposes them to our future. In this story we have to clearly explain that under the future structure the Winterbottom/Faulls roles will tend to be reversed. Whereas Winterbottom is now predominantly a distributor and Faulls predominantly a retail, in the future this will reverse. Therefore it will be in everyone's interest to change the base and accept a watered-down, scaled representation plan. We believe we have a chance of selling this story to Winterbottoms. We also know that the moment they have agreed to any change, that they will revert to their own ways behind our backs. So it is vital to have a strong man on the spot who will keep their noses to the grindstone."

Apart of the apparent ruthlessness of Kay's approach – and after all, he is a businessman, it shows

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that he is the man for the job. Kay has his finger on the pulse and it is a shame we don't have more documentation from him – unlike the Product Engineering documents were have been examining throughout the year.

The image below shows the projects volumes he has in mind for the "New Driving Force"

ASSUMPTIONS

a) Production ceases end October - week 1 November build clears lines.

b) No retail/wholesale bonus on Mini series.

c) Marina bonus - $200 at retail, $600 at wholesale for 'one for one' retail/wholesale and if factory unable to supply ex stock.

d) P76 bonus - $400 at retail, $800 at wholesale. Same conditions as Marina.

e) Moke/Van and Mini production transferred to PMC with build from end February.

f) BU importation assured on Marina with receipts ex UK available for plant sale in March 1975 - continuity of retails/dealer stocks is maintained.

g) Some P76 and Marina company stock units are assumed to be 'scrapped'.

h) Basic strategy of dealer organisation will be to take advantage of Marina/P76 bonus at expense of Mini - this follows from dealer recognition of Mini's ultimate survival and relatively greater saleability in relation to the short term profit advantage of quitting P76 and Marina stocks.

The P76 retail and plant sales forecasts provide a $ bonus support for retails in November/April of $980, $963, $912, $811, $660, $528 respectively. A bonus of this nature would (on X6 experience) induce a significant retail performance. However, as this bonus is tied to a 'one for one' retail/wholesale pickup and in view of the circumstances we would suggest that at best retail performance would not exceed P67 in November/December.

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SUMMARY PROPOSED DEALER REPRESENTATION AND SALES — PHASE 2

	No. Dealers	SALES Total	Spec	Volume	Cross Country	TRUCK & BUS No. Dealers	Cross Country	Truck
N S W								
Metro	10	5178	1986	3192	-	2	222	
Country A	17	3584	933	2082	569	8		591
B	25							
	52	8762	2919	5274	569	10	222	591
VICTORIA								
Metro	10	4155	1567	2588		2	162	
Country A	10	1993	534	1164	295	8		387
B	16							
Tasmania	4	786	216	419	151	2	-	46
	40	6934	2317	4171	446	12	162	433
S A								
Metro	3	1421	461	960		1	59	
Country A	3	1031	228	536	267	6		149
B	12							
	18	2452	689	1496	267	7	59	149
QUEENSLAND								
Metro	3	1353	415	938		1	194	
Country A	8	2342	505	1178	661	8		200
B	15							
	26	3697	920	2116	661	9	194	200
W A								
Metro	3	1410	485	925		1	407	
Country A	3	704	120	318	266	12		127
B	12							
	18	2114	605	1243	266	13	407	127
AUSTRALIA	154	23959	7450	14300	2209	51	1044	1500

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Episode 40

Well folks it's the 10th of October 2024, and on that day 50 years ago, David Abell released the memo below addressed to all employees advising that "Leyland Australia will be restructured in a reduced manufacturing role". I suppose he could have just said "the factory is closing down" but that's management-speak for you. However, the talk about redundancies was clear enough as to what the meaning was.

Abell had pulled off an incredible deal with the Australian Government – they would purchase the site at a reasonable price (it turned out to be about $19.5M), and they would also purchase some 759 vehicle (P76 and Marina) to give the Company some liquidity to pay out redundancies. The redundancy payouts were quite generous and depended upon an employees' length of service.

Personnel were to be placed into three classifications:
1. Carry-over personnel who would be desirable to keep in the slimmed down organisation at Enfield and Moorebank.
2. Short Term personnel to help with the closure of the Victoria Park (Waterloo) and while employed, to have a 20% loading on their normal salary.
3. Redundant personnel to be let go immediately.

As you will remember, Peter Davis was tasked with "restructuring" the Product Engineering Department and this was selected as the first to have the retrenchment action undertaken. Employees were interviewed and those in Classification 1 were asked if they would be willing to move to Engineering Services at Moorebank. They were required to answer yes or no on the spot. If they answered "yes", they continued employment. If they answered "no", they were immediately made redundant. Employees in Classification 2, for short term employment, were also given an option "yes" or "no". If they answered "yes", they continued on in short-term employment. If "No", they were immediately made redundant. Employees in classification 3 – immediate redundancy.

Peter carried some 32 positions to Moorebank, and some 6 vacancies to be filled by advertisement – a circumstance that won him few friends from those who would be losing their jobs, but there was no need some of the more highly qualified staff – after all, what would people like Anderson and Hardy do at Moorebank? Ken Haw found a way to stay on at Waterloo as officer in charge of the Vehicle Emissions Laboratory and was employed by the Federal Office of Road Safety.

Ron Moss was appointed Production Manager, and later, Plant Manager at Enfield, and Peter Davis ended up as Product Development Manager at Engineering Services in Moorebank. Senior managers Wallis and Prescott took up residence at the new Bondi Junction company headquarters (miles away from Enfield but handy to the eastern suburbs where the managing director resided – George King (after Abell's almost immediate return to UK)).

Other managers like John Kay reinvented themselves to handle transition of the dealer structure to the "New Driving Force" with UK imports. Parts and Accessories more or less continued as normal unscathed.

So, we come to this important point in the Company's history and it is worth reflecting.

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When BMC first started off in Australia in the mid 1950s, cars from UK did not fare very well. Long distances over rutted dirt roads in a hot climate were unimaginable to the designers in UK who were used to narrow country lanes through the green fields of England.

At Victoria Park, Managing Director John Buckley got the ball rolling by establishing the beginnings of a Product Engineering Department, complete with a stylist, and the Morris Marshal was probably the first "built for our conditions" UK car – at least styling wise Others followed, with local significant modifications for Morris Major, Freeway, Mini, 1100, and 1800.

But Product Engineering had a tendency to overstep the mark. The wide-bodied Freeway was instantly cancelled the moment Abbott (by then MD) got wind of it. The Austin 1800 utility was a flop. The Morris 1500 OHC and Nomad weren't raging successes. The six cylinder Marina? Instantly forgettable. It seems that small, targeted modifications fared well, but larger scale ventures never quite found their feet. P76 was the biggest gamble of all but failed to contain those "living with the car" experiences that caused so many problems. Indeed, part of Kay's post 1974 sales policy was to retain the goodwill of existing customers (see attached). You'll notice that out of all the problems he could have picked, those blasted water and dust leaks were his top pick – to rectify any that needed attention without regard to warranty limitation.

Abell thought that Product Engineering at Waterloo was an almighty waste of money. Time was to prove him right in a way. As roads and conditions improved, it became no longer really necessary to engineer imported vehicles for Australian conditions from the point of view of durability. For a time, there was a need to adapt vehicles to our Australian Design Rules for safety and emissions, but as such requirements became standardised throughout the world, local engineering declined in importance.

To take a leap into designing two completely new cars from scratch using a relatively inexperienced team on a job of this magnitude seems incomprehensible. The decisions on styling based on viewing of photographs of 1/4 scale models appears inexplicable. Indeed, that styling played second fiddle to the engineering from the start reveals that it was thought that customers would be convinced by the long list of mechanical improvements compared to their competitors, when in fact history shows again and again that external appearance is the single most deciding factor (perhaps after price) surrounding a sale and success of a company's product. You might get away with it with something like a VW Beetle, but there is a knife edge difference between failure and success. Mini did it, 1100 did it, but not 1800. For P76, with outstanding mechanical specifications using industry standard components and an Italian stylist, what could possibly go wrong? The expectations were so high that it even won the 1974 Wheels Car of the Year less than a year into production. But despite the car's reputation, the whole project remains an incredible effort from all the employees and suppliers involved. There will never be another circumstance like it.

When we look back on the events of November 1974, it must have been the depths of despair. Suddenly, all these Task Forces, Critical Timing Meetings, MKII P76, Wagon and P82 developments all dissolved in an instant. Can you imagine the state of mind of those people who had carried these burdens for the last 4 years to have everything just stop dead? – and without even a thank you? By early 1975, Abell had chuffed off back to UK to be replaced with George King, who only lasted a year, Frank Andrew (four years) and then Ron Hancock (one year). When you ask past employees who was the managing director after Abell, hardly any of them remember, the most common response being "they just came and went".

Leyland

But, with the new look manufacturing and Enfield, it wasn't all over. The Service Department had to carry on with the multitude of problems that continued to arise with P76, the most serious of which was the tendency of the steering lock not to disengage after turning on the ignition. This was bought to the attention of the Company when Director Norman Lawrance had departed the Bondi Junction offices in his company P76 one afternoon to find that the steering wheel had become jammed and he subsequently ran into the gutter. The resulting brouhaha between the company and Wilmot Breeden, the outside supplier, dragged on for years. A recall campaign was eventually started in 1979 (!) affecting over 7000 vehicles.

Somehow I think that if Leyland Australia had just stuck to what they knew perhaps they could have weathered the storm. Small front wheel drive cars – which soared in popularity from the mid 1980s onwards were right up their street, but the timing just wasn't right – or, to be more critical, the future model policy of the mid 60s was just way off target. P82 could have had a chance, but someone at some stage decided to go with P76 first.

Eventually, the Company found its feet in the 1980s as an importer and for some years, profits soared – but that's another story for another anniversary.

And so folks that's where we leave the story … and this Facebook page. As a disclaimer, I have never owned a P76 but like many people have owned many of the other cars from BMC/Leyland Australia. I have no axe to grind and am grateful for my few years at the Waterloo emissions lab before it too succumbed to a change of Government policy. Some people have remarked that I had never met some of the people involved, or I hadn't worked there during those times and what would I know. I ask that readers give a historian some credit for his research. I did work with some of these people a few years after the closure, and I've talked to many others in their old age who generously told me their stories. The significance of their work, for those I haven't met, comes through from the evidence they left. I've read hundreds of factory documents most of which those who did work there have never seen.

Some of you have read the "Building Cars in Australia" book written by the BMC Leyland Australia Heritage Group – a great book full of terrific pictures, but, dear Reader, doesn't really tell the full story. I have sought to address this by including as much detail as I can in my own book, "Leyland Cars in Australia: a Chronicle", which, like these posts, I think tells it more like it was.

Nearly every reader of my generation probably wishes they could have had the opportunity to work for BMC or Leyland Australia, but times change and the company would never have survived the introduction of so many systems to be found in a modern motor vehicle. But, if we couldn't have worked at the factory, we can at least still take an interest in what happened and for those who did work there, hopefully these posts will answer some unresolved questions about events which so deeply affected their lives.

When the closure was announced, engineer Reg Fulford wrote up his thoughts which still have relevance today, and I will put the whole document on the website www.leylandaustralia.com.au so you can read for yourself an insider's view of a wider picture.

I thank you for your kind interest in these posts and I thank all those who generously sent me first hand factory material to work with and so in turn present to you.

Best wishes,
Tony Cripps

Leycars

1. Maintaining Goodwill of "Old-Line" Owners.

All P76 owners to receive attention to water leak complaints without warranty limitation. Primarily provision of modified sill-plates and other fixes as necessary.

Engine, gearbox and power train extended warranty to 24 months/40,000 Km applied to current owners.

Mr. J.D. Abell, Managing Director of Leyland Australia Pty. Ltd. approached Dr. Cairns early in August. Mr. Abell said that in July plant sales (i.e. sales to dealers) of the Leyland P76 had fallen dramatically. The figures for plant sales of this vehicle in recent months had been : March 1228, April 505, May 688, June 435, July 127, August 180, September 175. Mr. Abell alleged that the fall in sales in July was directly attributable to press comment about Leyland, following public release of the I.A.C. report on Passenger Motor Vehicles on 11 July. Mr. Abell said that he had little alternative but to terminate the company's operations in Australia involving the immediate retrenchment of 6,000 employees. In addition, more than 300 independent Leyland dealers would be unable to continue. As an alternative to this course of action Mr. Abell said that if he could obtain liquidity immediately he could restructure the company's operations to phase out the uneconomic activities and build up the company's more profitable operations. Mr. Abell stressed that the U.K. parent company was not able to assist because it was having considerable financial difficulties itself.

Leycars

TO ALL CORPORATE STAFF

There appears to be a need to clarify some of the conditions relating to the Retrenchment/Severance Scheme where uncertainty now exists, and to advise of some new proposals.

The Scheme was developed to provide some financial protection to those employees whose positions within the organisation became redundant due to the closure of the Waterloo Plant, thus resulting in loss of jobs.

Whilst the Company reserves the right to declare positions redundant as outlined in the Scheme, it also recognises that the magnitude of the redundancies means that there are more people available than there are positions in the re-structured organisation. Because of this, yet within the limits of the Company maintaining the balance of skills necessary to continue the business, some degree of personal choice has been allowed in electing to accept the redundancy payments. Whilst this has and will occur in those instances where there is more than one person with the knowledge and skill necessary to perform the job, it cannot occur in those instances where this does not exist.

The Company does recognise however that this and subsequent events have caused wide spread concern among employees about their own security and the future of the re-structured organisation. In order to help allay some of these fears, and in a tangible way demonstrate the confidence we have in the future, the Company now guarantees that:

(1) should any Corporate staff employees be retrenched between now and 31st December, 1975, the conditions outlined in the Retrenchment/Severance Scheme will apply

(2) where job changes occur the employees' interests will be protected in accordance with the Guidelines attached

Leyland

(3) normal operating activities such as promotion, transfers (for experience and development), training, salary reviews, etc. will occur.

Notwithstanding these additional conditions the other provisions of the Retrenchment/Severance Scheme will still apply.

The task of winding down the Waterloo operation and at the same time re-structuring a new organisation is extensive and is placing high demands on many people. Unfortunately at these times communications suffer. Despite these difficulties however many have responded very well to what is an extraordinarily difficult situation.

I can only stress that whilst the immediate future is not going to be easy, prospects for success are real.

J. D. Abell.

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TO ALL LEYLAND CAR DIVISION EMPLOYEES

In order to keep all employees informed of matters that affect them the company now wishes to advise all Car Division employees that:

Extended talks have taken place with the Australian Government and the results are to be announced this week.

In accordance with the Government's desire to rationalise the Australian automotive industry, Leyland Australia will be restructured in a reduced manufacturing role.

Every endeavour is being made to contain redundancy to a minimum.

In addition, by the use of Commonwealth and private agencies and consultants, the company will also assist all employees affected to find alternative employment and will provide assistance in vocational guidance and personal counselling.

The company will discuss redundancy arrangements with the Unions. Some redundancies will occur fairly soon; others will not occur for some weeks, and in some cases months. Where employees stay on, under certain circumstances, they will be paid a premium on wages or salary at the end of the agreed period.

All these payments will be in addition to committed pension plan payments and statutory and award requirements.

Those employees retained by the restructured Leyland Australia will be offered job opportunities and these will be outlined as soon as possible.

J. D. Abell
Managing Director

Leyland

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Epilogue

If you are interested in more detail about the history of the company and the vehicles, then there is plenty to be found in my books::

1. Leyland Cars in Australia: A Chronicle – tells the story of BMC/Leyland/JRA and beyond from the beginnings of the company in the 1950s to the end in the late 1990s. Particular focus is on the Victoria Park operations and then Enfield and Moorebank. If you are an ex-employee, or just an interested person, then this is the book for you. Drawing on a collection of hundreds of factory documents, this book brings it all together. Every reader is guaranteed to learn something new about the Company and the Factory even if you worked there. Many of the posts on this FB page have come from this book.

2. The BMC Companion – this is a book about the Engineering behind various systems to be found in BMC/Leyland vehicles. This book shows how transmission ratios are chosen, how the performance of engines are measured, how the ignition, fuel, cooling, suspension and steering mechanisms are designed, and even how a car radio works. If you are a "Ray Habgood" kind of person, then this is the book for you. Indeed, some of the treatments shown here were taught to me by Habgood when I was a student in his engineering class at technical college. A unique book.

3. It's a Mini World – an anniversary book for the Morris/Leyland Mini and Moke to celebrate 60 years. Something for everyone in this book and ideal if you own a Mini or a Moke. Chapters written by individual people who worked at the factory.

4. BMC-Leyland Australia Reference: - Peter Davis and I (well, mostly Peter actually) wrote this book over a period of many years to document each and every model produced by the factory at Victoria Park. Every detail of vehicle identification and engine numbering is explained and listed in every conceivable way possible. A testament to the thoroughness of Peter's incredible discipline. He more than anyone else at the factory kept things together and organised.

5. Secrets of Style – tells the story of motor vehicle styling at Victoria Park from the beginning up until the days of the Leyland Mini LS at Enfield. Told by the company stylists themselves. An incredibly revealing book and after reading this, you will look upon any motor vehicle with a new appreciation of what makes a well-styled vehicle and what doesn't.

6. Engineering Series: A collection of books presenting hundreds of excerpts from the official factory engineering drawings for Morris 850, Morris Mini Deluxe, Morris Cooper S, Morris Mini Clubman, Morris Mini Moke, Leyland Mini, Leyland Moke, Austin 1800 and Leyland P76. Nowhere else would you find such books for any motor vehicle marque and we are indeed fortunate that thanks to Peter Davis (mentioned above) that the original paper drawings were microfilmed before they were destroyed.

7. Workshop Series – a new series of specialised topics mainly for the Mini and Moke range. The first book present complete drawings of all the sealing and sound deadening items to be found in these cars. Essential if you are restoring a car to factory specifications. The second book is a detailed listing of the modifications made to the Mini and Moke range of vehicles produced in Australia as listed in various Service Bulletins and other factory documentation. Great information if you are restoring a

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car and are not sure what is supposed to be fitted to it or what modifications were made and when.

All these books are available from the web site www.leylandaustralia.com.au and most are also on Ebay. Some books are available on Amazon for overseas purchasers.

I am very proud of these books and have enjoyed working on them and sincerely hope that you find them valuable and informative. None of them wouldn't have been possible without the extensive support given to me by Peter Davis (now deceased), Ron Moss (also deceased) and Bruce Elson (still hanging on) along with quite a number of other people (see list on front page of the web site) who are getting more aged by the day – including your present author. I wish you happy reading.

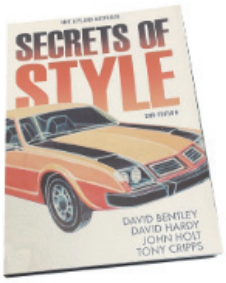
Timeline photos

Timeline photos

Timeline photos

Timeline photos

Timeline photos



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