BMC – Leyland Australia Heritage Group

ORAL HISTORY PROGRAM

INTERVIEWEE : JOHN BARRY ANDERSON **TAPE NUMBERS :**

INTERVIEWER : JENNIFER CORNWALL **BMCLA JC17 / JC18**

INTERVIEW DATE : 5th NOVEMBER 2001 **NUMBER OF TAPES : 2**

RESTRICTION ON USE : (as stated in Release Form)

INTERVIEW TAPE LOG

This interview took place at: **58 MALVERN AVENUE, ROSEVILLE, NSW, 2069**

on **5th November 2001.**

This log was prepared using a **Sony Stereo Cassette–Corder TC-146A** recorder

By – **N. Prescott.**

This interview is part of the Oral History Project of the BMC – Leyland Australia Heritage Group.

Tape Log

Tape : BMCLA : JC17, Side A		
COUNT	**SUBJECT**	**NAMES & KEYWORDS**
50	(Incorrectly quoted as 16). Born Melbourne 1935. Moved to Canberra, Brisbane, Melbourne, Sydney by 1946. Attended St. Aloysius College, Milson's Point. Followed by 2 years at Sydney University. Changed to part-time mechanical engineering degree at NSW University of Technology on starting cadetship at BMC in May 1955. Interest in aeroplanes but advised to take broader mechanical engineering course.	Mechanical Engineering Degree. BMC Cadet.
100 150	First 2 years in all areas of factory. 3rd year in department of choice – Experimental with Reg Fulford.. Growth of Product Engineering with positions available. BMC Victoria Park was 1st vehicle manufacturing plant in NSW. No enthusiasm for motor manufacture in Sydney – people recruited from other States. 60 employed in Experimental – not one born in NSW.	Experimental. Reg Fulford. Product Engineering. Victoria Park 1st Factory in NSW.
200	Role of Product Engineer to specify original designs or adaptation of UK origin designs and convey results for manufacturing. Two divisions – Design and Experimental. Function of Experimental – 1. Testing as specified by Design. 2. Independent audit of Design. Formative time was spent in Experimental. Great interest and fortunate to be involved.	Product Engineer Function.
250	Manufacturing also had significant challenges – particularly in the introduction of transfer machines involving more design content. Product Engineering identified need for modifications. Morris Major designed in UK was first BMC product in Australia. Modified for the local conditions and market. Similar projects followed – example, Mini De Luxe wind-up windows designed in Australia.	Transfer Machines. Morris Major. Modifications. Mini de Luxe wind-up windows.
300	Product planning less formal than UK – decisions made by the Heads of Engineering and Sales. Large number of modifications – often due to difference in local supply industry. Example – UK used electric fuel pumps. New mechanical pump developed with Goss Manufacturing over a period of a year. Road wheels designed to meet ADR requirements. Windscreen wipers to provide better coverage.	Fuel Pumps. Goss Manufacturing. Road Wheels. Australian Design Rules (ADR) Screen wipers.
350 400	Experimental effected tests in Outback to prove adequate durability. Acceptance targets established – 10,000 miles on unsealed roads. No Company test-track – had to use country roads. Typical areas - Nyngan, Bourke, Charleville. Trucks also tested. Story of Len Broad testing with concrete block load creating news of nuclear plant being built. Intensive schedules with shifts of drivers from 5am–10pm. Procedures for control and safety. Test but not abuse. 55 mph speed limit. Low profile and no problems with residents. Used local garage or hotel as base.	Outback testing. Nyngan Bourke Charleville Len Broad.
	1958 left Experimental for UK on one year staff exchange. 6 months at Longbridge, 4 months Oxford, remainder with suppliers. UK engineers more hide-bound and specialised. Bill Serjeantson story of window vent fouling steering wheel when reversed to let more air in. UK designer unaware of as he had never driven car. Australian engineers had wider experience.	UK Staff exchange program. Longbridge Oxford Bill Serjeantson.
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Tape : BMCLA : JC17, Side A (continued)		
COUNT	**SUBJECT**	**NAMES & KEYWORDS**
450	First factory building was CKD – the assembly of cars with all UK parts. There was no mechanical handling. Later Unit Factory, CAB and Press shop were designed for moving assembly on conveyors. Principle became known as "Just-in-time" system. Bodies moved through Paint to Assembly. Power units went to CAB to join bodies. All fully automated before the use of computers. The right parts arrived at the right place at the right time. Recently saw the same features demonstrated at new VW factory in Germany.	CKD assembly ('Complete, Knocked Down') Factory design. 'Just-in-time' system.
500	Process came after World War II. Work by USA on similar lines. In UK, Austin developed 200 ft. long in-line transfer machines to produce engine cylinder blocks fully automated. These machines were installed in Sydney about 7 years ahead of General Motors Holden.	In-line Transfer Machines.
	End of Side A. (continued on BMCLA JC17 side B)	

Tape :	BMCLA : JC17, Side B	
COUNT	**SUBJECT**	**NAMES & KEYWORDS**
50	BMC personalities. First Managing Director, G.A. Lloyd. Was mostly associated with R.L.(Bill) Abbott, initially as Chief Product Engineer. A great influence – earthy and likeable. A natural engineer. Got to heart of matter in discussions and summing up.	G.A.Lloyd. Bill Abbott.
100 200	Notable vehicle designs described - Low Light Morris Minor, Minor Series II, Station Wagon, Morris Oxford used as taxi. Austin A50 & 55, Major II, Elite, Austin A40 Farina – the 1st volume 2-box design before later hatch-backs. ADO/8/9/10 series, ADO9 mid-size car was developed with B series 6 cylinder engine and called Freeway. ADO9 also had B series 4-cylinder engine increased to 1622cc capacity.	Range of models.
250 300	Drama during testing Major II. Steering arm failure – cracks found causing redesign for urgent change. Model with boomerang motif – Morris Marshal, an Australian adaption of UK Austin A95. Mini introduction was radical change in small car design. A 2-box concept with revolutionary space within overall length. High level of steering response and handling. Minor first with rack and pinion steering – also had good handling and was right for its time. Mini was first called 850 model to avoid the inference of something less.	Major series II steering arm. Morris Marshal. Mini 2 box design. Minor steering. Morris 850.
350	Early policy of 3 car designs – first as ADO8/9/10 models; followed by ADO15 Mini, ADO16 Morris 1100, ADO17 Austin 1800 all revolutionary and right for time on market. Factory was profitable until late 60's. Had moved away from high local content to approx 87%. Daily production levels of 100 Mini, 100 1100 and 40/50 1800. Factory producing at capacity and profitable. Additional models – vans, Mokes, 1800 Utility which Anderson was responsible for as a part-time job. Also responsible for Dynamometer engine testing, rig-testing of components and road proving. Different test programs – for design intent, accelerated or 'butch' tests, 10,000 mile durability tests. Further model variants were – 1100 Nomad, a hatch-back and the Tasman/Kimberley developed from the 1800 based body.	3 Car Design Policy. 1800 Utility Experimental Function. 'Butch' test. 1100 Nomad. Tasman/Kimberley.
400 450	Company forced to move to a 2 Car design policy – A & B. Initially tried a V8 engine with auto transmission in an existing front wheel drive body as model B. Costing was unacceptable causing decision for conventional front engine and rear wheel drive. December 1967, became involved in model B (P76). David Beech, Engineering Director, formed Advanced Model Group including Graham Hardy. Reg Fulford prime author of plan in June 1967. Recognised inability to build 3 models and meet Government 95% content rule. Previous system using some imported panels and engine parts could not surpass 85%.	2 Car design policy. Model B (P76). D. Beech. Advanced Model Group. Graham Hardy. Reg Fulford.
500 530	Whole year 1968 spent on study. Anderson on mechanical with Hardy on Body. January 1973 set as target release date due to start of Australian Design Rule (ADR) for barrier-testing for steering column structure. There were also Emission Standard changes. Policy again changed in 1969 to a 1½ car design plan. A stretched larger body as the base model with a compressed version to provide a smaller model.	Barrier Test Design Rule. 1½ Car design policy.
	End of Side B. (continued on BMCLA JC18 side A)	

Tape : BMCLA : JC18, Side A		
COUNT	**SUBJECT**	**NAMES & KEYWORDS**
	Engine design based on aluminium V8 produced for an earlier Oldsmobile/Pontiac car that had been sold to Rover UK and not used. In 1969 a design review visit from UK led by Filmer Paradise led to request for 'more Sheet-metal'. Also, UK had introduced the Marina equating to the proposed smaller model 'A' leading to decision to concentrate on one model B (P76). An Australian version of the UK Marina was planned.	Aluminium V8. Filmer Paradise. Marina. Model B (P76).
50 100	Model program and timing issued on 16th April 1969. This would take 400 man/years of Engineering effort. Launch date set for March 1973. Schedule was met within 6 weeks over the 4 years. P76 grew 5 inches during development. Compared with other local manufacturer's failed projects, the P76 was the model people remembered.	Launch date.
    150	Targa Floria model arose from request by Evan Green in 1974 for car to enter Africa/Europe World Cup Rally. Suspension struts failed in desert but car won section on Targa Floria race circuit – hence name for special sale promotion instigated by Frank Andrew who later became Managing Director at closure.	Targa Floria. Evan Green World Cup Rally Frank Andrew.
   200	P76 designed with 4 levels of specification but only 3 were used. Leyland Marina was a practical and comfortable car with lots of boot space. Further model, the Force 7, a 2-door version of P76 was in progress and approx 50 were built. It was too adventurous. Whole front end was a plastic moulding – now common feature. Only 7 survived the factory closure. An entirely new car design was in progress at the closure – the P82, also with A and B versions. Anderson and Sales Director, John Kay, visited styling studios in Italy. Michelotti were chosen and spent about 1 year on project before closure.	 Leyland Marina. Force 7. Plastic moulding. P82 Model. John Kay Michelotti.
250 300	P76 design intent was to manufacture at a competitive price which dictated front engine and rear axle drive. Features were adopted from previous designs to maintain an 'edge'. Rack and pinion steering and Macpherson struts produced more responsive handling. Aluminium V8 engine gave a weight balance comparable to a 6 cylinder car. Whilst basic structure was main stream, the P76 had desirable European features and styling, with more comfort and interior space. The Australian market demanded the large boot.	P76 Design Assessment.
    350	Accusation of P76 'Lemon'. The product was not finished to a good standard. Body problems, windscreen finisher glue failure, water leaks, body hardware faults, poor panel fits were all present at release. Reasons go back to April 1969 decision to hold and review program. A 6 weeks delay in UK caused failure to produce the requested 10 prototypes. Only one of 10, plus one body shell, became available. 4 prototypes were produced late in Australia and, in consequence, all the necessary testing was not effected. This caused delays in 1st-off sample approvals and, thus, the body quality fell down. Mechanically, the model was good, with low warranty costs reported.	P76 'Lemon'. Quality faults.
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Tape : BMCLA : JC18, Side A (continued)		
COUNT	**SUBJECT**	**NAMES & KEYWORDS**
400 450	In October 1974, Engineering Director, Kjel Eriksen, (David Beech and Peter North, MD had left earlier) announced closure. Anderson was sent to UK with 3 tasks – Transfer of recruited engineers back to UK. Acquaint UK with status of P82 and V6 alloy engine project. Review UK product plans for future sales in Australia. Visit took 2 months. Before departure Anderson and Reg Fulford were offered jobs by Bill Abbott, then CEO of Commonwealth Aircraft Corp. on Sonar Buoy project at North Ryde. They were also offered jobs in UK. Anderson rejected for family reasons and on return, spent a year on the Sonar Buoy project which included flying operations and he obtained a pilot's licence. He continued with CAC until 1982.	Kjel Eriksen. Plant closures. Peter North. V6 Alloy engine. Bill Abbott. Commonwealth Aircraft Corp. Sonar Buoy Project.
   510	Highlight of time at BMCLA was the P76 launch in Australia and in UK when approval was also given for the P82 program with finance of $500,000. Also had vivid recollections of people he had worked with.	P76 launch.
	End of Side A. (continued on BMCLA JC18 side B)	

Tape :	BMCLA : JC18, Side B	
COUNT	**SUBJECT**	**NAMES & KEYWORDS**
50 100 130	Vivid recollections of people he had worked with.. Reg Redfern, an old-style tradesman character and an anti-Communist with strong views. Strict relationship in training of assistants. Story of patternmaker making prototype part. Learning process in a different age. Relationship with Stan Noon and sensitivity in dealing with patternmaker incident. Clay Turner, ingenious in designing and making machines for testing components. Always in demand. Had facile way of putting people off requesting repairs to personal possessions. Anderson learnt to fly with Clay Turner.	Reg Redfern. Stan Noon. Clay Turner.
	End of Side B / End of Interview	