Leylines 47

Canberra and Districts Leyland P76 Club Newsletter October 2006]

Next Meeting: Tuesday 10 October
Weston Ck Labor Club
From 7.30PM

Photo: Warrewyk Williams

Presidential Pearls

Have you ever known someone who was so arrogant they would not listen to good advice…even their own?

Well, now you do. My P76 has been out of action for over two months now. Originally, I noticed a small amount, two or three drops at most, of coolant leaking from the top of my water pump. So I decided to fix it before driving to Eastern Creek, so as not to risk it breaking down in front of all the Ford and Holden fans.

After draining the coolant, I might as well replace the radiator hoses, and the heater hoses, the heater tap, put in the bigger radiator, some thermo fans, and the thermostat.

On the other hand, I could have put in some stop leak, but in my defence, I submit Exhibit A: the car did get a bit hot last summer when sitting in traffic.

Anyhow, all was well until I was replacing the perfectly serviceable thermostat. I even had a new thermostat housing as part of my free parts from the SA club. I was cleaning the gasket surface on the inlet manifold when I noticed that the thread on one of the studs was a bit rusted. So I thought I would change it too. Now as Exhibit B: I would claim that in the past, say 15 years ago, whenever I attempted to remove the thermostat housing on a P76 the stud would come out of the manifold long before the nut came off the stud.

I did not foresee any great difficulty in removing the stud, so I grabbed it with a large pair of pliers, and proceeded to destroy any remaining thread... hmmmm.

Not to be outdone I got a pair of vice grips, adjusted them to size and further mangled the steadfast stud. Who would have thought a stud that had spent the last 33 years in the same location would be so reluctant to budge?

It was not a big drama at this stage. Just get the Dremel with a cutting disk and put a slot into the top of the stud, then using a large snap on screwdriver and a shifter honk right on that stud and show it who's boss. Well at least I showed the top half, as it snapped off flush with the manifold. Perhaps if I had used another brand of screwdriver?

Ok not big problem, get the EZ out set and drill a hole right through the middle of the remainder of the stud. Chose the right size EZ out and using a 4" shifter so as not to exert too much force and risk breaking the hardened steel EZ out off in the inlet manifold. Because then I would be in real trouble.

Still no joy. I know, spray a bit of that Penetrene super heavy duty WD40 type stuff to loosen the stud and it would probably pop out using little more than willpower. It was at about this time my wife came out to see what was taking so long. I explained my predicament but told her I was right on top of it. See, I was even using this tiny little

shifter so as not to exert too much force. No joy. So I filled the hole in the stud with Penetrene and left it for a good soak whilst I went inside for some lunch.

After lunch I tried again. It would not budge, but I did notice as I exerted force, via my little shifter, that the Penetrene would be forced up past the thread and out past the stud. Hmmm, it must be almost loose now. Go and do some other things for a bit and let it soak some more.

Once more with the little shifter, 'cause the last thing I want to do is put too much strain and break off a hardened steel tool in my inlet manifold... Still no joy.

Then out of the corner of my eye, I noticed a 12" shifter, just sitting there. The next thing I know I have a hardened steel EZ out snapped off flush with the stud snapped off flush with my inlet manifold……!!!

A week later, after a total of five or six hours with a diamond ball shaped tip and a number of teardrop and cylindrical tungsten carbide Dremel bits I managed to remove the EZ out, mainly as dust, and then what remained of the stud. By this time, the thread of the hole in the manifold was less than perfect. So off to specialty fasteners for a Recoil kit.

I did such a good job it made the other rusty stud look sad. I tried various combinations of two nuts, spring washers and spanned but the stud stayed, so I welded a nut to the top of the stud and...

Some people never friggin' learn. OK, weld a great big bolt to the top of the busted off stud and let it have it back and forth with the big spanner.

Then rethread the other hole and smooth the gasket surface ready to be where I was three weeks ago.

Then on with the new thermostat and elbow, radiator, fans and water pump.

The only problem was, I had 'lost' one of the four long bolts that pass through the water pump, through the timing case cover and into the front of the block. I looked all over the place, on the floor under the car, under the shelf. But it was nowhere to be found. I had already silasticked up the new water pump gasket so had to keep going with the install.

Later in the week, I removed one of the other three long bolts to measure it and go back to Specialty fasteners to buy a bolt. But back at home, it was at this point I discovered that reason I could not find the fourth bolt was because it had been snapped off and discarded in the past. Better go and find that Dremel...

Editor's Note

Ouch! After Alex's dramas, we'd better have a couple of more positive stories to cheer everyone up. Many thanks to Alex and, of course, the redoubtable Damo for their contributions to this month's Leylines.

See you on Tuesday

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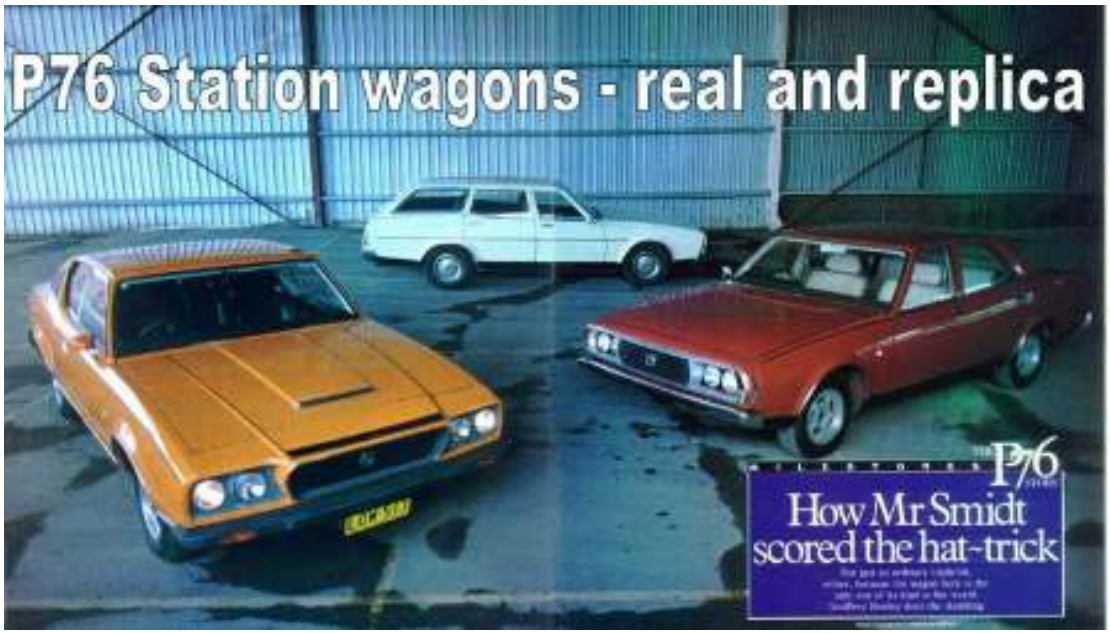


The real deal – factory station wagon with a Force 7 and Sedan (Wheels 1982)

P76 Station wagons: Real and replica

Damien Haas

In Leylines 45, I wrote about the Easter 2006 Cootamundra P76 National Meeting. In my write-up of that event, I used a photo of a Leyland P76 station wagon that Michael Livingstone bought to restore, prior to his illness. Subsequently, I received an email from Anton Frank correcting my assumption that the P76 station wagon in Michael's garage was the station wagon that Jilden Reichhardt built.

In order to set the record straight, and prevent a mistake from becoming 'fact', I decided to do a little research on the P76 station wagons that are floating around.

There are three extant station wagons, one factory produced and two replicas. For the sake of this article, lets name them 'Factory Station Wagon', 'Replica One' and Replica Two'. The factory wagons will be the subject of a later article.

The Factory Station Wagon

There is only one known factory produced station wagon still in existence. It is a Country Cream V8 column shift automatic with Super trim. This car was used at the Zetland plant as a runabout factory hack following the closure announcement, and then auctioned.

There were three, possibly four, station wagons constructed at the factory, two Country Cream V8s built in the experimental department and two on the production line, one Bitter Apricot V8 and a Crystal White, which was never completed (and may never have existed). The Bitter Apricot production vehicle was sent to Ford Australia for crash testing and was destroyed. One car may or may not be a pre-production car and its existence and demise is not clear. The surviving car is from the experimental department.

Following the demise of the Leyland Australia manufacturing operation in Zetland, an auction was held to dispose of cars, spares and other equipment. The wagon was not offered at this auction, but later when the plant was being cleared. John Smidt who was a Leyland parts dealer in Sydney bought the wagon. He was quoted in Wheels magazine of November 1982 as saying:

> *"Leyland offered the station wagon and the Executive together, I bought them. I had to tender for them but I believe only two other people tendered, so I got them quite easily.'*

In the same issue, Wheels ran several articles on the P76, Leyland Australia and its demise. One of the articles was on John Smut's P76 collection and featured a sedan, a Force 7 coupe and the station wagon. Wheels noted that:

> *'The station wagon is much closer in design to the P76 than is the Force 7. It's almost the same length. The front is the same and the front doors seem to be virtually the same as the P76's. The rear doors were made up new. The rest looks pretty makeshift. The surrounds of the rear side windows are brass cut from a flat plate, not stainless steel or chrome, just to have something looking more or less right. The rear window looks too small and square, just a slab of flat glass with a rubber strip glued across the bottom and you can't believe it would have gone into production like that.'*

John Smidt had the car registered and used it in his business 'Mini Kingdom' in NSW. He also used it as a 'factory hack'. Although it left Leyland in Country Cream, John had it painted Crystal White. After some time, he let the registration lapse and it was only used at his business. He then stopped using it altogether. The car began to deteriorate. At some point John started to restore the car but only got as far as replacing mechanical components. About twenty years ago, Joe Green bought the station wagon and a Force 7 from John. Both cars are still owned by Joe Green.

Factory station wagon undergoing restoration

Joe put the station wagon into storage and focused on his other cars, including the Force 7. In the last year, Joe took the station wagon out of storage and began to restore it. It has been stripped back to bare metal and will be painted in its original Country Cream colour. Joe has confirmed with Leyland workers that this is the colour the station wagon was originally painted. At present, the car is in two-pack primer.

Joe advises that mechanically the car is very sound, but the body needed some work. While it was in bare metal, Joe observed that the rear wings were all hand made and that the roof is one complete pressing. The rear door glass is custom made, but had a major

glass manufacturer's logo on it. The tailgate is one piece and folds up, but the glass slides down. The glass winding mechanism is broken and Joe does not know what Leyland used.

As time permits, Joe will paint the factory station wagon and complete the restoration.

Replica One – Larry Cole

Larry Cole's completed replica station wagon – photo taken in Mildura. Date unknown

The first replica was constructed by Larry Cole in Mildura in 1979. This car in NV Green with Executive trim is a close approximation of what a factory produced P76 station wagon would be. Larry had restored a Leyland Trojan and also owned a P76 Targa Florio. Larry's inspiration for building a P76 station wagon was very simple. He had ordered a wagon from the Leyland dealer in Mildura, but it was never delivered – as the company had ceased manufacturing P76s, he decided to build his own.

Almost finished circa 1980

In 1979 he collected two wrecked P76s, a Bitter Apricot Executive and a Corinthian Blue Deluxe, and began measuring, cutting and welding. Larry had never seen any photos of the factory station wagon, but knew what he wanted. Using a combination of a sedan roof, sheet metal and much hammering and forming, he constructed a wagon roof retaining the profile of the sedan roof. The tailgate and opening were based on XY Fairmont station wagon parts, with the P76 sedan boot lid skin welded on. The tailgate

was one-piece and lifted up with an electric rear window operated by a key switch in the centre of the drop-down tailgate.

For the interior, Larry modified the P76 rear seat so that it folded forward. He also used Falcon hood lining and vinyl side panels. The base car VIN is 076 A4S2 M44 1160 11/73 making it originally a Corinthian Blue V8 Deluxe 4 speed. Larry converted it to Executive level right down to things like power steering, seats, mouldings, interior, A/C and even a rear radio speaker inset above the rear window opening. Construction took him about 18 months in 1979 and 1980.

Under construction, circa 1979

Apart from the obvious work on extending the roof, modifying the C pillars and removing the structural panels between the C pillars, no other major work was required. The floorpan was not modified and this was a significant factor in gaining registration. When presented for inspection and registration it was instantly accepted, primarily due to the non-modification of the floorpan or running gear.

Larry and his family enjoyed the station wagon for about ten years and used it extensively on family trips to Melbourne several times a year. On the road, it handled identically to his Targa Florio sedan. As his children grew older the station wagon was used less often until Larry took it off the road, and it sat in a shed unregistered for several years until Anton Frank purchased it in 1999. Larry only has two photos of the station wagon, advising that the others were probably burnt by his ex-wife. The photos do show that the work was performed very professionally. Larry is still a Leyland man, owning a 1920's Leyland Trojan.

Anton Frank planned to restore the station wagon but with too many projects and too little room, after a few years he decided to sell Replica One.

In November 2004, Michael Livingstone from Cootamundra procured the wagon constructed by Larry Cole, from Anton Frank. Michael has meticulously restored a

number of P76s (including his concours winning Aspen Green Targa Florio) and intended to rebuild the wagon. As can be seen from the more recent photos of the wagon, it needs considerable work. Michael unfortunately contracted an illness, which affected his health considerably and has now parted with several of his cars, including the station wagon replica.

As this photo shows, there is plenty of room in the rear of a P76 station wagon.

Replica One is now owned by Warrewyk Williams. Warrewyk says that the attention to detail shown by Larry Cole when it was constructed was a key factor in his decision to buy and restore the car, despite its current state. Restoration work on this car began in August 2006.

Replica Two - Jilden Reichardt

The second replica wagon was constructed by Jilden Reichardt in 1996 in time for the SA P76 Owners' Club planned expedition across the Simpson Desert. Jilden has documented its construction thoroughly in several articles for his club newsletter.

For many years, Jilden had the kernel of the P76 station wagon idea in his head and would wander around car parks looking at station wagons and measuring them to find one that would suit his purposes. Finally, he settled on an XE wagon roof and obtained a complete wagon body to use.

He cut the XE Ford roof off and placed it on a P76. He measured everything and then started cutting. He took the P76 roof off between the side rails. He seam welded the XE Ford roof on to the sedan body, fabricating panels to connect the C pillars and panels for the back side windows. The C pillar remained full size because of seat belt anchorages, but the C pillar vents were closed because of bad airflow causing loud noises from the rubber seal flaps. Jilden thought a full production wagon would have had vents further back, perhaps in the D pillar.

Jilden Reichardt's P76 Station wagon – constructed in 1996

For the tailgate, he used the XE Falcon tailgate and the P76 boot, shortened to fit. The P76 boot lock was used. A combination of P76 boot seal and Falcon wagon tailgate seal was used to ensure dust stayed out. The tailgate is a lift up design with the lower half being half the boot lid, not just the skin. Jilden prefers this design for loading compared to the wind-up type as used in the prototype. Leyland Australia designed the Nomad this way, but followed the Falcon/Kingswood path in the P76 wagon.

Jilden noticed a lot of flexing about the tailgate area and to ensure structural integrity added stiffeners level with the floor - a seam welded panel of steel along the chassis rail and vertical struts under the new D pillars. He was intrigued to see factory pictures showing gusset panels in the same area in Hal Maloney's book. This means the engineers must have had similar problems with their prototypes. The difference between the two solutions is that Replica Two retains the original upright spare tyre position, giving more flexibility in the cargo area. Jilden believes the rear rigidity of the sedan is mainly due to the bolted in seat back. His wife's P76 creaked loudly when the seat back wasn't fully tight due to some stripped bolts. His wagon also 'creaks' around the seat catches. He thinks the stiffeners around the rear hatch area are essential to keep the aperture stable.

Satisfied that the structural soundness was restored, he attended to trimming the car. He used a Falcon seat upper and a Leyland seat lower for a folding rear seat and this combined with a plywood panel in the boot area gave him a flat floor. The Ford rear seat upper enabled the use of factory made catches and hinges, and makes for a level floor when down. When folded down the front seats must be moved forward which delivers a two metre-long floor. The interior is trimmed with Commodore fuzzy lining on the roof. The rear windows are Perspex and fitted using Falcon window seals.

Apart from a few small faults identified during the roadworthy test, registration was easily achieved based on the lack of modifications to the structure of the P76 and that the work was completed to a high standard. Jilden says that the engineering was deliberately kept simple for registration purposes.

Replica Two – jacked up suspension with off-road wheels and tyres.

In one of his articles on the station wagon, Jilden says '*as soon as it was legally registered as a wagon, I jacked up the suspension, fitted 15 inch off road tyres, a sump guard etc and crossed the Simpson Desert with it*.'

Recently Jilden advised that *'I always intended to build another wagon with improvements after destruction testing the first one on bush tracks. However, it never broke and time ran away from me...'*

Replica Two is currently off the road, but still owned by Jilden Reichardt. He has a long-term plan to restore it.

Comparing the real with the replicas

As the various photos show, the P76 didn't need a lot of extra engineering to produce a station wagon. If you look in your own P76 boot, you will see a circular depression, which suggests that the floor pan for the wagon and sedan would have been identical. The design for the spare position copies the Holden HK-T-G design, which Leyland engineers used as test mules. The petrol tank shape is uncannily similar.

The line of the roof and rear quarters on the factory wagon indicates that if further developed and produced it would have been an attractive spacious wagon. The Force 7 coupe has a fold down rear seat, and this would have been used on the wagon. I have seen one of these in a P76 (Warrewyk Williams 'General P') so they do seem to be an interchangeable component.

Compared to the replicas, the factory wagon seems to have neater finish in the rear around the D pillar and rear wings. This is to some extent evident in Replica One. Replica Two seems to be quite different with the window area apparently deeper into the D pillar, making it appear more angular and less integrated. The biggest obvious difference between the 'real' and replicas is that the factory wagon has rear doors, which are noticeably different from either of the replicas. They are squarer with a much less pronounced C pillar. The door glass is also different. I think the factory wagon C pillar

looks better than the replicas use of the sedan C pillar. Replica One came closest to the factory C pillar shape.

Factory wagon

Replica One

Replica Two

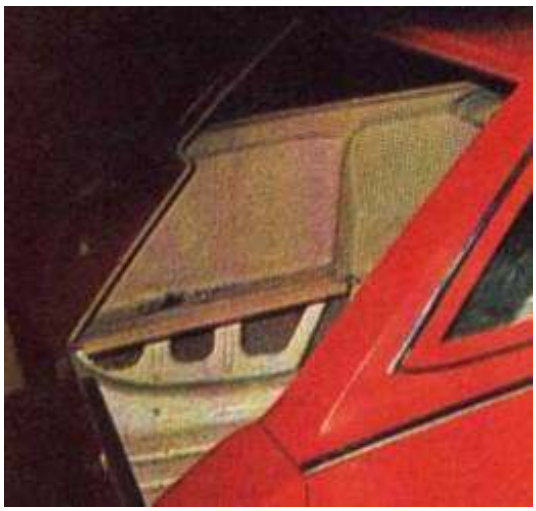
The factory wagon also has a more angled D pillar and tailgate. It's almost Audiesque in its angle. It is quite sporty looking, and unlike its local rival wagons which were much squarer. The D pillar on Replica One is far squarer and more like the 60s donor Falcon that it came from. Replica Two using an 80's donor car shares the angular D pillars. Out of all three, the factory D pillar angle looks the best, that doesn't mean the other two D pillars look bad.

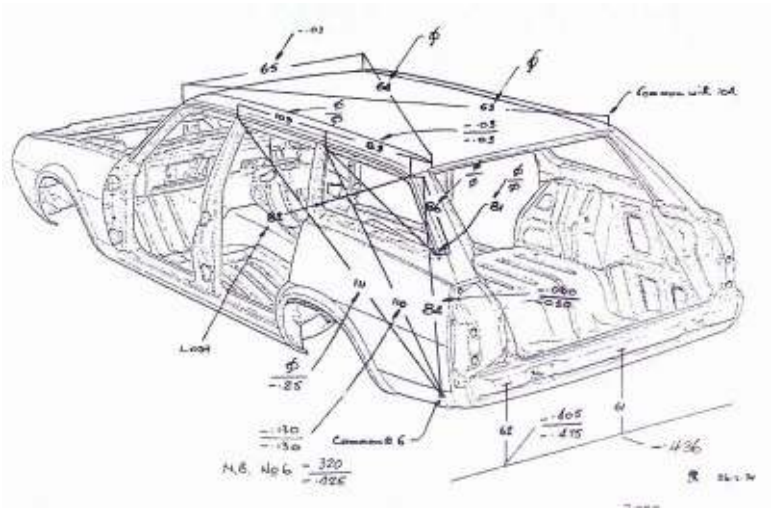
So what engineering challenges would the wagon present? As a stressed monocoque design, I'd be curious to know how Leyland managed to pare down the C pillar and maintain structural integrity, especially as the rear parcel shelf is gone, replaced by a fold down rear seat (visible in the photo below).

The factory station wagon (Wheels, 1982)

Both replica builders removed the parcel shelf and this does not seem to have affected structural rigidity. If Jilden can climb sand dunes in the Simpson Desert without the car coming apart, I don't think structural safety is an issue in the replica wagons.

A structural diagram taken from Hal Maloney's book, shows that in the boot area where the spare tyre would go in a sedan (and on the opposite side) a large sheet metal pressing with a cross configuration has been fitted. This may be to take the place of the parcel





shelf. Hal Moloney advises that this is a gusset panel, and was fitted to the two wagons constructed in the experimental department, and the production chassis. It can be seen (concealed by trim) in the factory photo above.

There is also the issue of flow through ventilation that would need addressing. By not using the sedan C pillars, the flow through air vents need to moved somewhere else. That location doesn't appear obvious, even on the structural diagram.

Delivery date of your new P76 station wagon

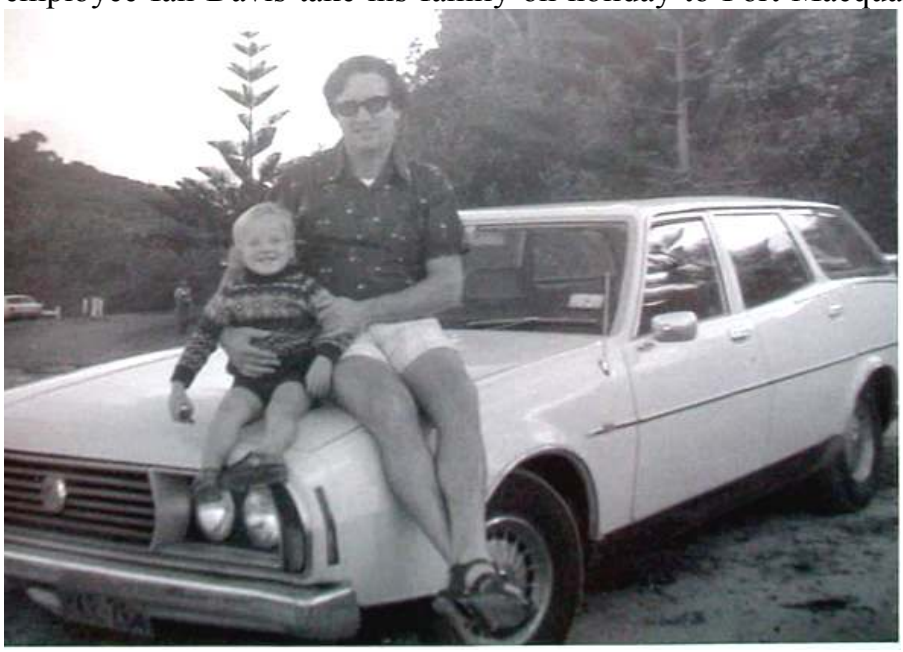
How close was the factory to delivering P76 station wagons? At least one had gone down the production line. Hal Moloney advises that the wagon would not have been produced until well into 1975. The last station wagon production specification from "Production Planning" was signed off on 16th July 1973. The production station wagon, floorpan C,

What could have been (digitally altered image)

Unlike the Force 7, the station wagon would have been a variation on the sedan and feature the same trim options as the sedan. The Targa Florio package was a Super option and if the wagon had been produced, would there have been Targa wagons offered?

had been crash tested by Ford in Melbourne and with that completed, the wagon could receive its compliance plates and be offered to the public.

Leyland had extensively road tested the station wagon prototypes, including letting employee Ian Davis take his family on holiday to Port Macquarie in 1973. It was fitted



The Davis family on holiday in an 'experimental' P76 station wagon

with a passenger side wing mirror for the trip. While on holiday, the electric rear window failed twice causing them to unload the wagon through the rear doors so access to the tailgate could be obtained in order to rectify the problem. It was fully registered in NSW as HKE-264. No other wagons were road registered by Leyland Australia.

At the time of the closure of the Zetland Factory, Force 7 coupes were being produced in some numbers ready for delivery to dealerships. Leyland wanted these on the road well before releasing a new model. Unfortunately, when the P76 was killed in November 1974, the station wagon due in perhaps only six months never made it to the market.

Some people seeing the obvious logic in a P76 station wagon, and the ease in which this conversion could be achieved, decided to create what the factory couldn't deliver. At least one builder had never even seen a photo of the factory station wagons, and yet both replicas were very close to what could have been.

This article was prepared with assistance from Hal Moloney, Larry Cole, Joe Green, Jilden Reichardt, Warrewyk Williams (and his Photoshop software), Anton Frank, and some people who wish to remain nameless.

Thanks to Peter Davis, son of former Leyland employee Ian Davis for permission to use a family photo.

Hal Maloney's book on P76's was used in relation to factory wagons. This book is still available and is highly recommended. Thanks to Hal for permission to use a diagram from his book, and for answering in detail, my emails.

Information published in Wheels, Nov 1982 was also used. Wheels magazine www.wheelsmag.com.au (136 116 for subscriptions) granted permission to use this material.

Fitting a 4.6 litre Range Rover engine into a P76 Targa Florio - Part One

Damien Pearce and Damien Haas

Among the topics of discussion recently at the club meetings has been fitting TH700 transmissions to P76s and also fitting a 4.6 litre Range Rover engine to a P76. Seizing upon an opportunity recently, club member Damien Pearce bought a 4.6 litre engine off eBay and had it delivered to his garage. He has been working on restoring a P76 Targa Florio in Omega Navy for about a year. The Targa Florio is already modified with a manual transmission and large Simmons mag wheels and rubber.

Damien Pearce ready to get down and dirty in his suit

Targa Florio under surgery.

Damien has wanted to update his Targa Florio power plant since he bought it in 1999. The project investigation went down a few different paths. Initially he wanted to build up a P76 engine with SD1 Twin Plenum Group A UK touring spec EFI. However, the cost of rebuilding the 4.4 was slightly less then getting a 4.6 four-bolt mains caps Rover engine. Then he found a 3.9 block rebuilt as a 4.6 with 3.5 litre heads, 3.9 cam, Hotwire EFI 87-94 and front cover electronic ignition.

Fitting the much newer engine into a P76 presents few engineering challenges. The new engine will definitely fit into the P76 engine bay, and the ancillaries from the P76 such as the P76 timing cover, distributor, oil pump, alternator etc should fit the 4.6 litre engine. Although Damien plans to use the Rover EFI system, the 4.6 litre engine will also run with a conventional carburettor, with a large range of intake manifold options available from factory to aftermarket to suit.

Damien's 4.6 litre Rover engine

Apart from the EFI and external ancillaries, the engine is very similar to the P76, both sharing common heritage with the 3.5 Rover block from the 1960s.

The 4.6 litre engine is probably the ultimate development of this family and is still in production in the UK. In stock form the 4.4 outputs 192 bhp, while the 4.6 outputs 220 bhp. The 4.6 is also far more fuel-efficient and uses newer materials for gaskets and seals.

Swapping engines over

With the Targa engine partially stripped down, the changeover occurred on a Friday evening.

Targa Florio with 4.4 installed

4.6 drops straight in on P76 engine mounts

He dropped in the 4.6 without the flywheel, as it was different. The hub on the Rover block for the flywheel is smaller than the P76 block, so Damien has to find a Rover flywheel that will match. This is where his problems have started.

Firstly, the contact plate area is different. The P76 has a contact area smaller than the Rover flywheel by about 20mm. This results in a larger clutch plate being needed with the desired spline hub to suit your chosen gearbox.

Secondly, being a 4.6, it has a different flywheel pattern to all Rover flywheels, and the Rover flywheels are also different from the P76.

The hub on the P76 crank is larger than the Rover 3.5 and 3.9, the 4.6 has an extra locator lug protruding out of the hub, and two of the bolt holes are slightly further apart at 23mm than the others at 19mm. Initially he thought a custom flywheel might be needed.

Upon further investigation, he noticed that there was a lug on the hub, which he zipped off with the angle grinder. He then put the Rover flywheel on the hub to check the fit, spun it on the hub to see if the holes lined up and they did - all 6 of them. He bolted it up and then put the clutch on with the Supra gearbox clutch plate and spline. He installed the fork and slave piston and adjusted the movement ready for the master.

So if you have located a 4.0 or 4.6 litre engine and intend on dropping it in the P76 engine bay, buy one with a flywheel, and sort out what gearbox you're going to use. The 4.6 only came into Australia with an automatic.

Apart from these minor issues, the good news is the EFI plenum clears the bonnet easily. This means that he can run the EFI system without changing any components over and without modifying the P76 bonnet. He is also waiting for the cross member to be welded with the Celica plate mounted at the bottom of the P76 cross member. This will lower the gearbox considerably and provide space for the suspension bottoming out. He even has a black '8 Ball' gear knob to suit the Celica shifter.

Now the driveline is sorted, Damien has to fit a new starter motor, and then the EFI wiring will be tackled. The EFI fuel pump needs to be mounted, the LAMBDA sensors have to be located into the headers, the EFI harness needs wiring up, installation of a TVR performance CHIP in the ECU and mounting twin thermos on a custom radiator.

He has installed a Rover 3.9 alternator, power steering pump and belts to provide updated ancillaries. The SD1 wiring system has been selected for the initial setup of the engine due to the simplicity of the EFI. Also, the Flapper type ECU has a 25 per cent inbuilt variation in the ranges of inputs to allow for changed driving conditions.

The Jaguar Type airflow meter provides a bigger throat for the airflow and he has purchased one from England with the original SD1 bracket, which will install on the top of the front suspension tower.

The battery will also have to be located to the driver's side, as the air box will go where the battery currently lives. Providing there are no problems with any of the newly installed components, successful starting of the engine only depends on the wiring of the starter, alternator and fuel pump.

Damien says, "This is a one of a kind install, and will bring tears to the eyes of purists. However, the P76 does deserve updating. I want to be able to drive mine for another 15 years. Daily."

In a February 2006 press release, MCT and Land Rover announced the Rover V8 Lives!

The aluminium Rover V8, used in many Solihull-built Land Rover products, is still being manufactured in the UK. MCT, an engineering and manufacturing specialist, won a contract from Land Rover to produce Rover V8 engines to support the aftermarket requirement for original equipment engines.

Production has been relocated from Land Rover at Solihull to MCT's plant in Weston-super-Mare. MCT will also handle sourcing and procurement of components and sub-assemblies, as well as testing and supply of the finished product.

For over 40 years this engine, with displacements from 3.5 to 4.6 litres, powered British marques including Land Rover Defender, Discovery and Range Rover, Rover P5B, P6 and SD1, MGB GT, Triumph, Morgan and TVR.

Who are MCT ?

They appear to be a British automotive parts manufacturer. Their thinly populated website states: "Over the past 40 years MCT has primarily been involved in the remanufacturing of automotive drive line products." MCT's customers include Ford, Land Rover, GM, Mitsubishi, Isuzu, Subaru, Caterham and LDV.

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