

# Leylines 57

Canberra and Districts Leyland P76 Club Newsletter July 2007

*Next Meeting:  
Tuesday 10 July  
Weston Creek Labor Club  
From 7.30pm*

Photo: Bryce French

## Presidential Pearls



P76 stuff is everywhere. Not that I watch the show mind you, but upon channel surfing, I happened to notice that the big blue couch on the Big Brother show appears to be upholstered with blue fabric not dissimilar to that found on the seats of an Executive P76. Have a look for yourself.

Bryce's exposition in last month's Leylines was well received and highly entertaining despite the numerous terminological inexactitudes contained within. I suppose as a further support to Bryce's assertions as to my apparent idiosyncrasies, the error that perturbed me the utmost was when Bryce incorrectly referred to the cow cocky's Hilux as a Landcruiser. Interestingly, this turgid aggrandizement is most often the insular realm of the Toyota driver.

For example, I have a colleague who drives a vehicle, that to even the most casual observer, is ostensibly a rear wheel drive variant of the global Camry platform circa late 20th century. Yet he insists on referring to it as a Lexus. As if this imparts a semblance of affluence, when all it serves to do is illustrate the fact he is either a proletariat, or simply too penurious to procure a Mercedes, BMW or any number of other fine European automobiles assembled in South Africa.

Another technique frequently employed is to reinforce the fact that the particular model they drive is 'top of the range' often referred to as 'Grande' pronounced similarly to 'latte'. As if driving about in a fridge with an ice cube dispenser makes them transcendent to those who drive normal whitegoods on wheels.

See you on Tuesday.

Alex



## Editor's Note



There hasn't been much action on my P76 in the last month. I think that I might have had it out for one run. Since Jason B pointed out that the upper front shock bushes on my car are not looking all that good, I've managed to get as far as obtaining some replacements from Graham Rogerson in the Queensland club. These are made from some kind of plastic but both Jason and Graham assured me that they are up to the job. Total cost including COD charges was about \$45.



In recent years I've lost enthusiasm for any job on a car that involves crawling around in dirt and grease on a freezing cold garage floor, so I decided to have the new bushes fitted by Chris, a friend who runs a tyre business and does some mechanical repairs. Chris installed the reconditioned power steering unit for me a couple of years ago. However, when I bumped into him recently he had just come out of hospital after a back operation, and he wasn't about to rush into any heavy work immediately. So the bushes have gone on the backburner for the moment.

On a different tack, I'm sure that everyone has heard me moaning about the frustrations of easily producing a decent newsletter with Micro\$oft Word. I've had a lot of experience with Word, going back over almost 20 years in a work environment, and also producing car club newsletters over the same period. One of the things that has struck me is that while Word is a very capable program that can produce excellent results, with each new version the graphics have become harder and harder to control.

Recently, while browsing in the newsagent I came across the July issue of PC User magazine. Included in the DVD on the cover was a full version of a desktop publishing program called Serif Page Plus 8. I couldn't resist trying it out and I've used it to produce this month's Leylines. PP8 readily accepts Word files and graphics, and joy, oh, joy, the graphics are easy to handle and position. It's still very much a learning process, but I'll see how it pans out in the next few months.

Thanks to Alex for his excellent article on the indicator switch.

See you on Tuesday

Col

# Wee Jasper Revisited

David Lee

Howdy everyone,

I'm back from my Queensland travels/family etc, and I had a good read of your Wee Jasper adventure today. I couldn't help but make a few 'observations' from the amusing read.

Yes, The Doctor's Flat road IS the shortest route there, BUT, and I mean BUT

(a) IT IS a public road, despite those signs. I forget the reason for those signs, something about it passes through private property, but it IS a

public road. The owner has NSW Government permission for those signs. At the other end (near Wee Jasper) there are no signs, just warning signs a few km in the road about non-suitability for caravans, long vehicles etc.



*P76s at the turnoff to the Doctor's Flat road*

(b) you are VERY LUCKY you did not go down Doctor's flat road. I have been on it (in my P I might add), after 4 months of summer drought in the mid-nineties, and even then, it was tricky. The road is a 4WD track if there is any moisture/rain/snow in the previous month or two. And coming from the Canberra direction, there is one uphill rocky section that is 'interesting', but from the Wee Jasper direction, it's downhill. Not to mention the amazing spoon drains you encounter along the route. The back of the P scrapes the ground as the front rises out of the drain, and on a few, the middle of the P scrapes the ground as you go over a hump at the edge of the spoon drain. Anything longer than a P (eg long wheel base 12 seater, Statesman, etc) will not make it past these spoon drains. It is a VERY VERY scenic route, with lots of hairpin bends.

Pity I wasn't there in May. I've been on every road into and out of Wee Jasper, from all directions (in cars & on my mountain bike), but by the sounds of it you all had a great time. I agree, we should go there sometime in the warmer months and see some of the sights. (caves, rivers, walks etc).

# A Flash P76...

Alex

As many of you know, the indicator switch is an Achilles heel of the P76. Most of the problems are in some way related to the cam assembly. Recently I noticed a new cam listed on eBay to suit a Valiant. It looked the same in the pic and was only \$33 so I thought 'what the hell' and bought one.



When it turned up I was excited. It looked the same, with the obvious exception that the spring clip that holds the entire assembly together was circular rather than the rectangular one in the P76. The cam was indeed very similar to the original, although I would later discover it was not identical.

I gathered up my collection of old switches and started dissecting the least cactus one as a starting point.

The most common failure point is where the two wires, one green and one blue, pass from the backing plate to the cam assembly, because this is adjacent to the point where the cam pivots, after 30 plus years of twisting and straightening the wires eventually break. As shown circled at the left.



There also appears to be a number of variations of routing for the wires in the switch. As shown in this particular example the two wires actually went either side of the white wires, thus adding further stress to the wires. Most of the others I have seen pass together to the outer most side of the switch.

Because the spring clip on the P76 is rectangular and resides in a rectangular recess I decided to reuse it rather than go with the circular one supplied with the new cam. This was a pain as they are very difficult to remove with out rendering them 'cactus' as well. After a few failed attempts I managed to carefully prise off the metal shaft of the pivot using a small flat blade screwdriver.

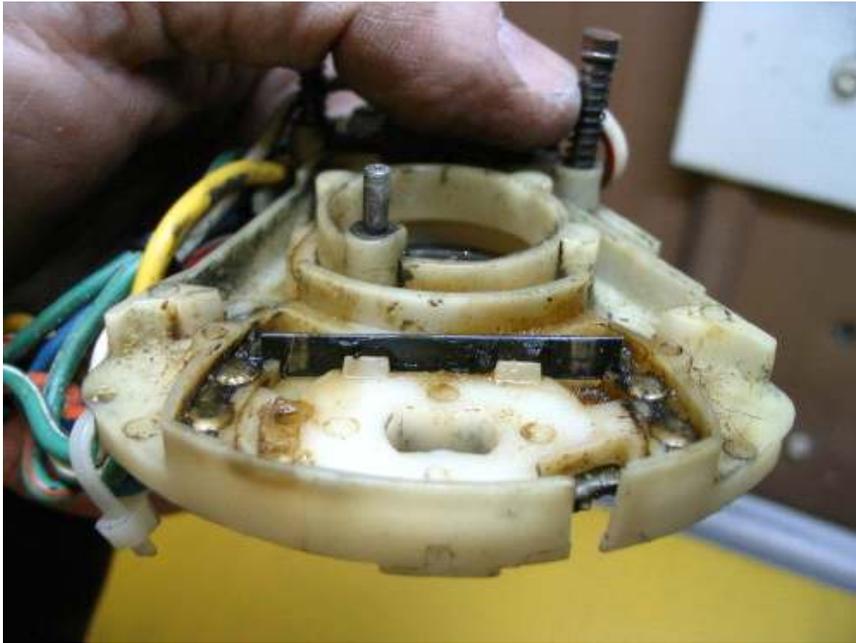


I then cleaned up the metal pivot into which the indicator stalk screwed, AFTER I had cleaned it up nicely I noticed that the threaded recess into which the stalk screws was pretty much devoid of thread. One of the pitfalls of using parts from a box of bits rather than fixing the one you have used for many years.

Here the shiny 'threadless' pivot can clearly be seen in the background.

Some of the P76s I have owned in the past have had a worn thread in the very same orifice, causing the indicator stalk to flap about. As a result I would have to occasionally screw in the indicator stalk to keep it tight. I purchased a suitable ( $\frac{1}{4}$ " UNF from memory) helicoil kit to renew the thread in the pivots. This gives a harder thread than that of the original diecast pivot, so it should stand the test of time better.

Reminds me of the 'P76 drivers' salute', regularly made by the absent minded P76 drivers who forget to tighten the screws securing their sun visors each time they return home, but are reminded every time they hit a bump when driving the car. When they go over the fifth bump they salute as they push the sun visor back up into position. Time and time again.

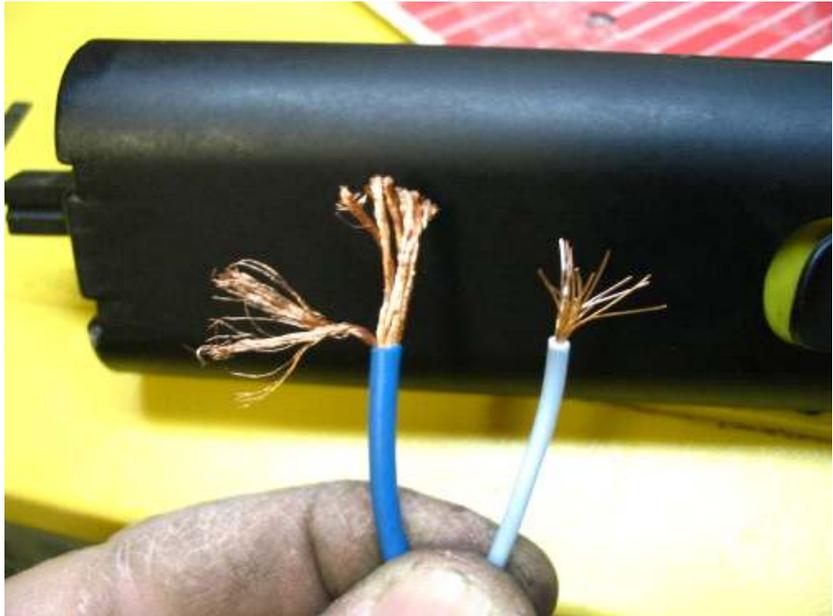


Here you can see the flat spring that returns the cam to the neutral position, as well as the 4 contact points the cam connects with. After the base was cleaned I used a small amount of fresh grease to help secure the flat spring during reassembly and to lubricate the contacts and the pivot.

At the right you can see the nice new cam resting on my dirty old rag. You can clearly see the rectangular recess for the pivot locking clip between the terminal contacts. However I did not like the wires it had so I changed them.



My reasoning for this was because in the past another method I have used to prolong the life of the refurbished assembly is to simply replace the actual wire from the cam with multistrand test lead type wire, as shown. This was before I had found the new cams and simply rebuilt a switch with the best of the worst of my second-hand bits.



Above, the pale blue wire on the right is from the new cam unit and has 12 conductors, whilst the darker blue one on the left is a slightly bigger gauge but also has 7 groups of about 40, or over 240 conductors making it, in the words of commandant Eric Lassard “many, many, many, many” times more flexible.

I have used this method alone to repair many units over the past 15 years with satisfactory results.



So I decided to replace the wires on the new cam by carefully prising the connections open using a small marlinspike, then crimping the new multistrand flex to the cam, soldering it for a better connection, then further securing the connections with heatshrink tubing.

Rather than prise open the crimp connections at the other ends, one of which is connected to the fragile hazard light switch, I elected, via presidential decree, to splice the other ends on the new cable in line with the old ones they replaced. Once again soldered and sealed with heatshrink tubing. This can be seen in the second last photo.

Then I attempted to reassemble the bits with little success. It was about now I discerned the difference between the new repro Valiant/Ford part and the cam originally fitted to the P76.

The metal pivot assembly passes through the base of the switch, through the cam and is held in place with the clip, but there was too much of a gap between the base and the cam.

After much fiddling and numerous attempts at reassembly, liberally lubricated with a wide and varied selection of 'bad words', it still refused to co-operate. I then measured the two bent metal contacts, the original clearly shown here, and discovered they are about 2mm shorter on the P76. After I snipped off a bit from the ends of each of the rods it all went back together impeccably.



I tested the switch in my car and the indicators worked perfectly. However, I found there was also a problem with the hazard lights, but that this could be rectified by signalling the indicator to turn and then all four indicators flashed when the hazard lamp switch was pressed.

I intended to correct this but Geoff was getting more insistent that I supply him with a refurbished switch as he had broken the cancelling 'arm' off the indicator assembly in his car many years ago and really wanted to return to the automotive utopia of a self-cancelling technology.



As he is getting on a bit in years, I considered the additional adverse ramifications of having to cancel as well as signal his turns. This was doubling the workload on this index finger, and for this reason I gave the prototype refurbished indicator switch to him at the next club meeting and left him to sort out the hazard lights.

#### *A footnote*

I went searching the Internet for more information of the vehicles that the replacement cam fits. I have decided that the indicator assembly for a 1969 Ford Mustang looks like the one found in the P76, but at \$89US I have not ordered one yet, but will look at one when I head off to Texas in September.



# Fixing the Wobble

David Walker

(This article appeared in the April 2007 issue of 'Anything but Average', the Victorian Club magazine. As well as being a good 'how to' guide, it also contains information that could be useful for our Spare Parts officer. Thanks to the Victorian club and Mick Clarke for providing the copy in Word format.)

While driving Marcus's very nice P76 Deluxe recently, I found the steering of his car to be vastly superior to my own 6 cylinder P76. Marcus had recently had the front end reconditioned and it would have to be one of the nicest cars to drive, even better than most new cars! I went home and proceeded to pull my P76 front suspension to bits. The front suspension is very easy to remove from a P76; you can remove the strut and spring assemblies, caster bars and lower suspension arms in an hour or two.

The main problem with my car's steering was lack of any maintenance over the years. On inspection of the front end I found that the caster bar bushes and lower suspension arm bushes were worn out. After removing all of the front-end bits I stripped everything down and cleaned and inspected the parts. Apart from the rubber bushes, the factory springs, struts and strut tops, caster bars and lower control arms, steering rack and tie rod ends were all in very good condition. Even the ball joints were tight and reusable. On further inspection of the brake components the brake discs have never been machined and the original Leyland brake pads are still OK!

I sandblasted all of the components and painted them with a good epoxy black paint. I noticed when I was cleaning the parts up that the front springs had a dab of red paint on them (Leyland did this at the factory, blue or red paint for identification purposes) so naturally to keep my car original I did the same!

I removed the original rubber lower suspension arm bushes with a press (they have a steel sleeve around the outside and are pressed into the arm) and replaced them with nolathane bushes. The original rubber bushes (Part no. AYD4065) are getting hard to get now and the nolathane replacement bush should last longer and you can buy them easily.

The caster bar bushes in my car were of the original type (AYD4030), a single bush that was prone to failure after a short time. Leyland soon fixed the problem and replaced these with a new two piece heavy duty bush, (HYL5080). These rubber bushes are still available, (They are the same as a Ford XF Falcon) so I used them.

The ball joint boots were both torn and N.O.S is no longer available. I used new boots from a Nissan Patrol (Part no. N14852201J00). These are better than the original and are available at any Nissan Parts Shop.

I cleaned up the brake discs and had them machined, and although I love the original 33 year old brake pads I replaced them with some new good ones, just in case I happen to incur a famous Leyland quality parts problem while I'm testing the power of my 6 cylinder engine!



Assembled strut



Strut top



Nolathane bottom arm bush

Also while I had the brake discs off, I replaced the wheel bearings. These are easy to replace and can be purchased anywhere as they are the same as Holden front wheel bearings, although the seals are different (part no.4000X1N)

After I reassembled the front end and put the wheels back on, I drove the car to a very good front-end alignment shop to have the alignment checked and adjusted. The caster was spot on (I set the caster bar length as instructed by the Service Bulletin) and only a small amount of adjustment was required for the toe. The camber is not adjustable but was checked and was found to be OK.

The car drives much better now that I have fixed the front end! While I was working on the car I noticed that the steering column lower bush had worn, and the intermediate steering shaft uni joint was very stiff. I replaced the bush with a N.O.S item, and as you need to remove the steering shaft to do this, I cleaned and lubricated the uni joint. These uni joints can easily seize up and cause stiff steering and N.O.S shaft assemblies are no longer available. Badly worn uni joints can be replaced with a similar type from a modern car, and are available through our parts and tech man, Marcus.



*Intermediate steering shaft Uni Joint*



*Steering Column Bush*



*New Bush installed in Steering Column*

I also had the wheels and tyres balanced. This is often forgotten, and as tyres get older they become out of round and often require rebalancing. Bashing the wheels up against the gutter doesn't help much either!

The next job on the list is to reco the steering rack to really finish off the steering on my car, and I have a broken automatic transmission in my V8 P76 that I will get to one of these days!



*Stub axle and stone shield*



*Strut shaft, seal & lock ring*



*Bottom of Strut top with locating pegs*



*Strut markings from the factory*



*Bottom arm before cleaning*



*Strut tops, both very good*

## An Important Message from the Government

Gentlemen and other members

We are honoured that the Government is desperately seeking our advice on matters of Policy. As you can see from the letter reproduced below, we are eligible for a grant of up to \$250,000. At the last meeting we decided to pursue the maximum grant as a matter of urgency. As Bryce was absent, he was voted our coordinator to develop a strategy and prepare an application. Club members should give thorough consideration on how we will spend our \$250,000. Proposals will be discussed at our next meeting. Don't miss it!



## Contact the Canberra and Districts Leyland P76 Club

### Mailing address:

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### Online address:

Yahoo group: <http://autos.groups.yahoo.com/group/p76act>

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|                       |                 |                 |
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| Editor                | Col Gardner     | Ph 02 6254 5177 |

## Two Reminders

1. Annual Membership Fees are now due. See Bryce at the next meeting or post your fees (\$20) to the club at the above address.
2. The August meeting will be the Annual General Meeting. Make sure that you are there to witness the back-stabbing and see the blood spill on the floor as members tussle for sought-after positions on the Committee for the next year.