Leylines...

Canberra and Districts Leyland P76 Club Newsletter - December 2003

Next Meeting:

Christmas Dinner

Monday 8 December 2003
At
Weston Creek Labor Club

Teesdale Cl off Fremantle Dr Stirling

starts 7.00pm...

WHO ZOO IN CANBERRA

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PRESIDENTIAL RAMBLINGS

Hello All,

Well, we survived another year unscathed. A few members have gone, but more have come, so we are in a better position. With a new injection of enthusiasm and fresh ideas.

I hope you can all make it to this years Christmas dinner, I have heard a rumour that it will be Bryce's shout. But most of you know the sight of Bryce reaching into his cash box and taking something out is a sight seldom seen. So be at the Weston Creek Labor club to see this amazing once a year phenomenon.

On a slightly more serious note the rego on my Exec is due to expire next month, so I will be the first to run the gauntlet of our new hysterical registrar, wish me luck.

Hope to see you all on Monday.

Alex

Minutes of meeting 10.11.2003

Attendees...

Mark Bailie
Col Gardner
Sid McGlynn
Alex Shoobridge
Bryce French
Paul Hanley

Apologies...

Geoff Thomas
Damien Haas

Meeting opened 8.05pm

Xmas dinner/meeting is to be held at our usual venue starting at 7pm on Monday 8 December.

Mark Bailie has investigated the possibility of our club hosting a display of our cars at the Tuggeranong markets. The date suggested was Sunday 14 December. It was decided this was too soon to properly organise enough participants and since we only get the one chance to do this right, it was decided to wait until next year.

Mark Horill has sold his car.

Sid is after the large metal clips that hold the interior visor pad in place.

Question asked where is promised DVD of carmakers movie.

Parts to be added to wish list are Lower control arms, external rear view mirrors,

FOR SALE..

Sid has several parts for sale, these include…

Auto transmission, Brown bench seat. He will accept the best offer for either part.

Ph 02 6297 7912 after 5pm.

Editor's Note

My best intentions to change the Newsletter to a single column format to make it easier to read on screen have come to naught this month. I know that it's not hard to do but there will probably be some consequent changes, and as I have, as usual, left the production to the last minute, so I'll just procrastinate until next year.

October's magazine from the South Australian P76 Club included an excellent and informative article by Jilden Reichardt on solving the overheating problems that seem to be inherent in the P76. I was interested to see that there now seems to be an alternative to the usual three row Holden V8 radiator recore. Jilden recommends the core from a Nissan Bluebird RWD sedan. Apparently it is the same height and tank plate size as the original P76 radiator.

Anyway, for those who haven't seen the SA magazine, I've taken the liberty of reproducing Jilden's article as our technical tip for this month.

See you next Monday,

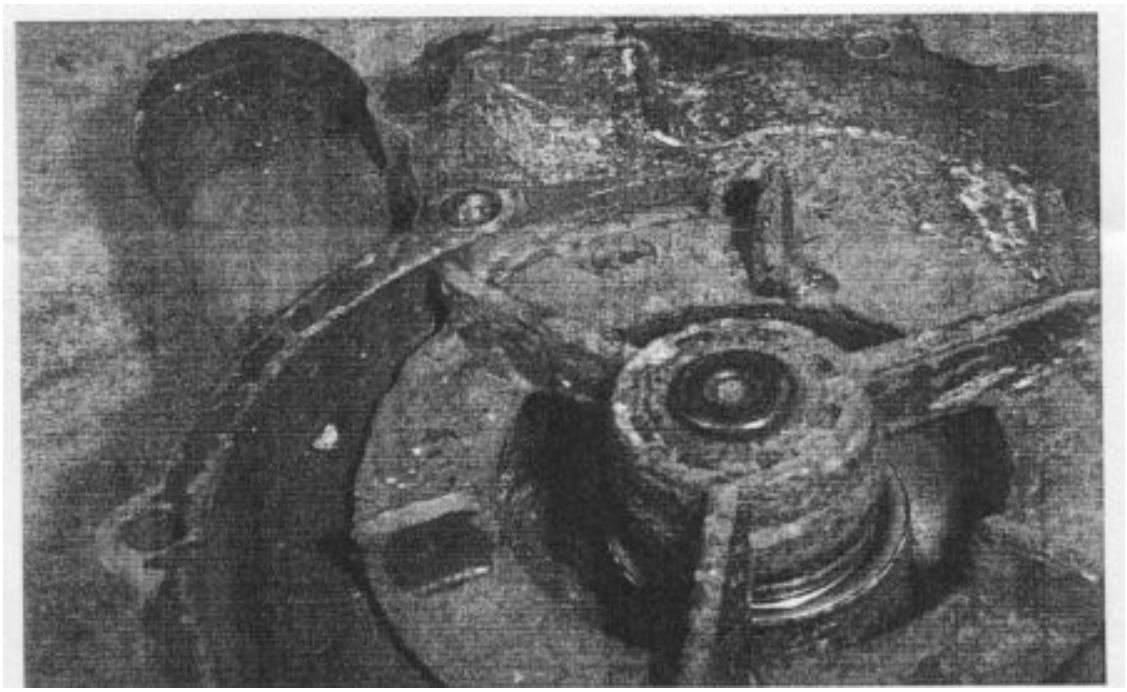
Col

COOLING SYSTEM STUFF

DEFINITION: Automotive coolant is water with corrosion inhibitor added.

Every so often I go off the deep end at someone who hasn't been listening to me about the dangers of buying their coolant/corrosion inhibitor based on a recommendation for 'older cars'. You must remember, it's in the Industry's interest to get your 'older cars' off the road as fast as possible. Every square millimetre of the inside of your precious P76 engine that is made of highly reactive aluminium will suffer for your lack of care. To illustrate what happens when you use poor grade corrosion inhibitor, look at this..

Cavitation occurs when a pump runs at high RPM and the cooling system isn't at full pressure. This means either the engine is cold, or your radiator cap is faulty. Cheap coolant works by causing a hard black Phosphate coating to form on the surface of the aluminium. During cavitation, this layer is knocked off the aluminium by imploding vapour bubbles. A new layer has to form, using up a small amount of metal in the process. Over a few months, this can destroy a water pump or a timing cover. The coolant also relies on oxygen being present in the coolant. Where oxygen is lacking is under hose clamps:



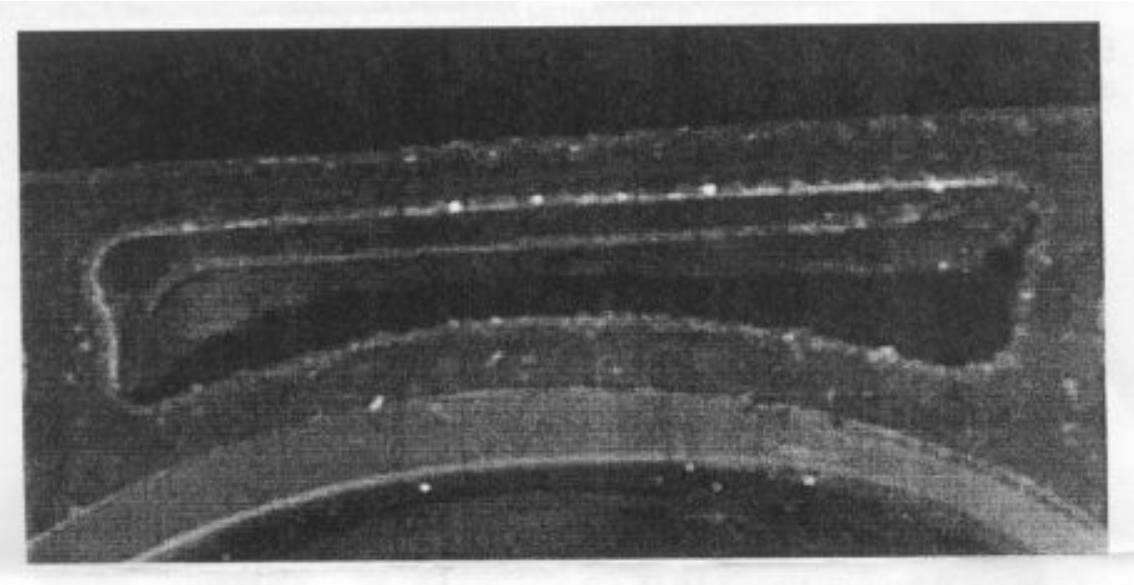
This type of damage is usually slower than cavitation damage, but none the less, a 30 year old pump won't be re-buildable if you don't look after it. The warning sign with this kind of damage is a large bulge immediately behind the hose clamp, as the aluminium rots away.

So how DO you tell whether your coolant is any good? Put on a new thermostat housing, run the car for a few months, and then pull off the radiator hoses and the housing. Look for a black layer inside and powdery corrosion on the outside. This is a sure sign that you are risking the life of your engine.

Now for some other issues: how to keep your P76 running at a happy temperature. For maximum life, the P76 should run at between 80C and 90C. Below 80C, the oil tends to not evaporate any contaminants, and above 90C the head gaskets tend to weaken as the alloy 'walks' with the higher expansion. P76 V8s run at 100C or higher tend to expand enough for the cylinder liners to come loose and rattle hideously. I have met this problem quite a few times, especially with P76 V8s fitted to Range Rovers. A lack of cooling power is fatal to the press fit of the cylinder liners.

How to keep your P76 warm? Simple, fit a thermostat, at 80C or higher. To keep it cool is another matter. Some tips are as follows:

Head gaskets can partially overlap the water jackets at the back of the block:



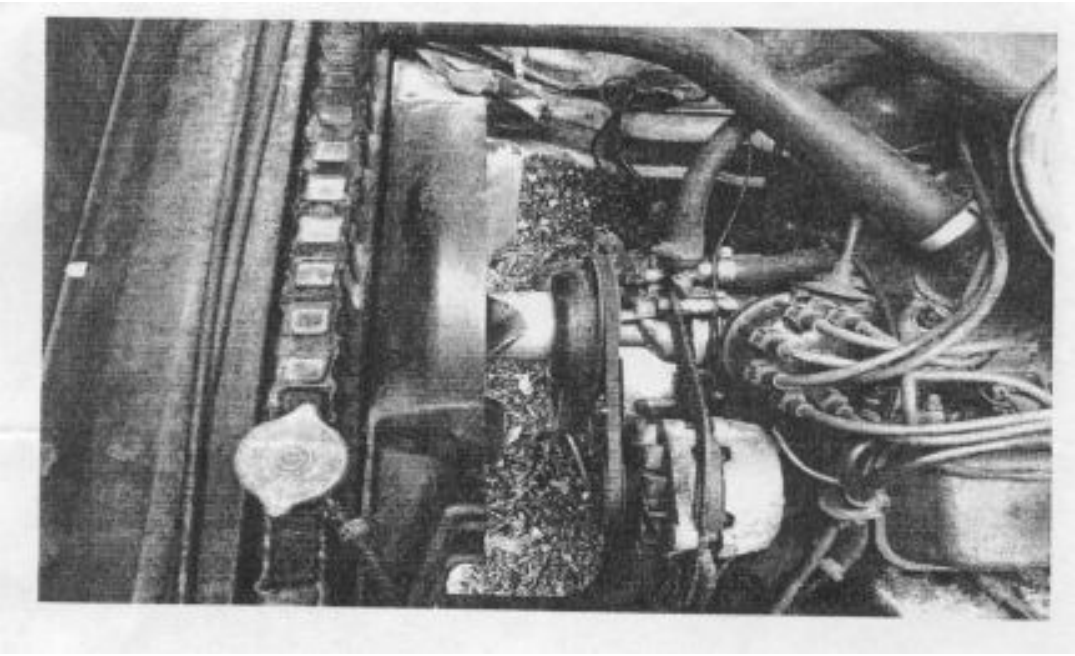
Casting dags can block the same passage. Look at the left of the picture..

The inlet manifold is usually a poor fit on the head water ports. The lower edge partially blocks flow into the manifold. If the port is opened up to gasket size, water flows much easier:

Original:

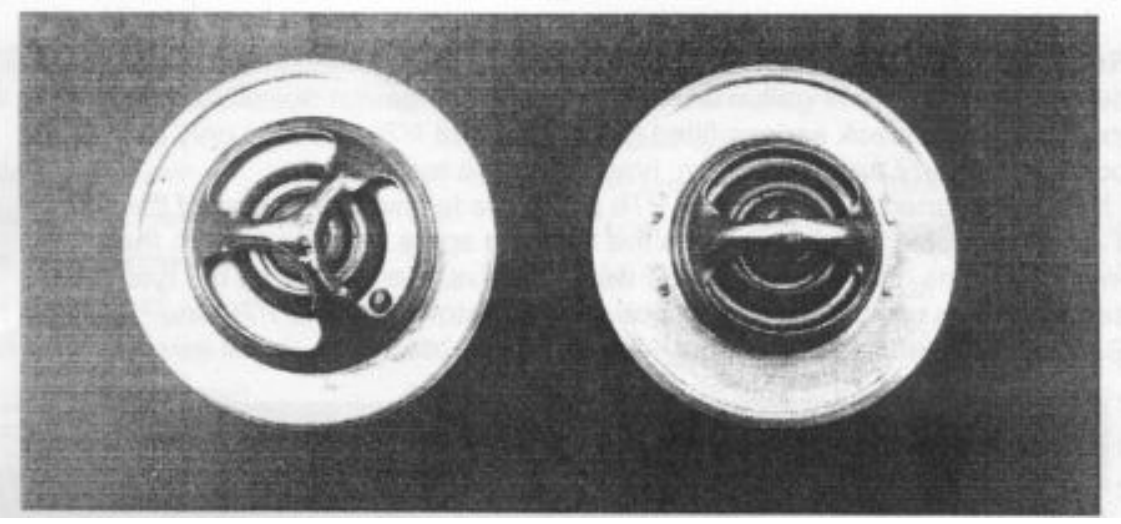
Ported out to gasket size:

Engine fans should partially protrude from the back of the shroud. This allows air to flow from the tips of the fan, and pass to either side of the engine..



A standard fan will work in traffic when the fan spacer is shortened by 25mm or so, as in the picture of a standard P76 above. A viscous fan drive from a Holden, when fitted to the P76 V8, will have enough rearwards offset to cool at slow road speeds. The Holden fan coupling needs to have the bolt pattern altered with a sharp round file or rotary burr, as the P76 bolt pattern is slightly smaller.

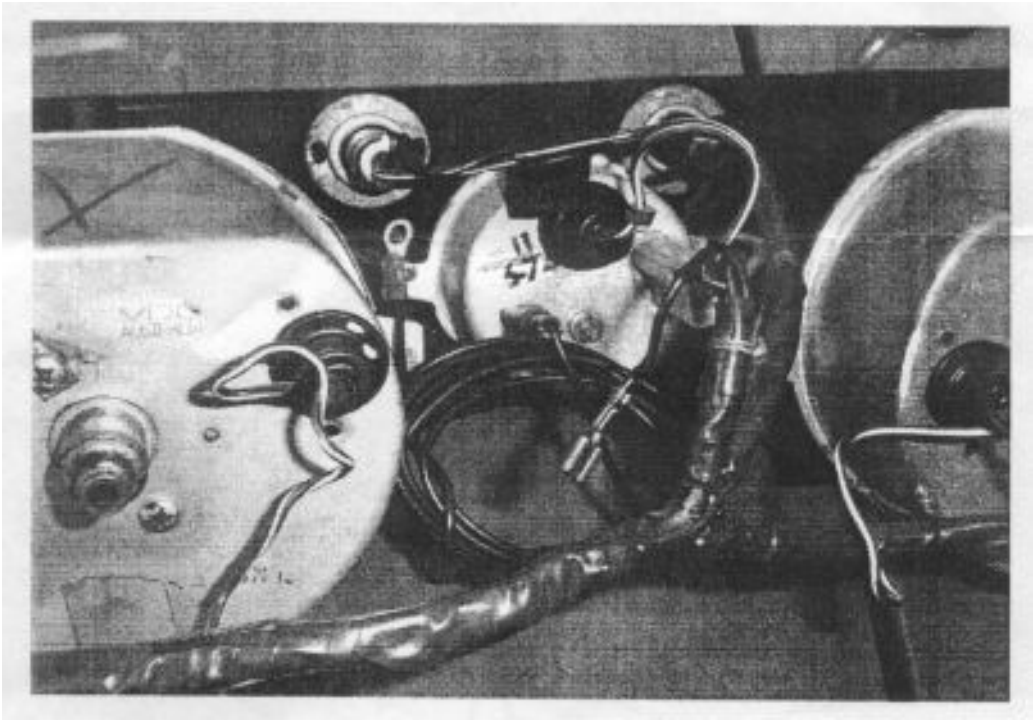
Water flow can be improved by fitting a **high flow thermostat,** such as the **Tridon** part no. **TT2000-180** one pictured overleaf on the left. The manufacturer claims 30 per cent more flow. A standard one is on the right.



The best fit core for a standard P76 radiator, enabling it to look absolutely original, is a three row one specified for a **Nissan Bluebird** RWD sedan. It is the same height and tank plate size as the original P76 radiator. My experience with this type of core is that it is very efficient.

Last but not least, some P76s have temperature gauges that get higher when you turn on the headlights. The reason being, the factory earthing between the gauge and the engine block isn't sufficient. As current flows, the gauge gets false signals. You can replace the engine earth cables under the bonnet, as this helps with headlight brightness anyway.

I prefer to also add an **independent** earth wire from the temperature gauge to the top of the carby or manifold somewhere. Now the gauge will only respond to changes in temperature, not electrical load.



Remove the existing earth wire and tape it up. Replace it with 1.2m of wire with a female connector for the gauge. Fit a ring terminal to the other end and connect it to the top of the engine. The wire is coiled up in the picture to show both ends.

Jilden