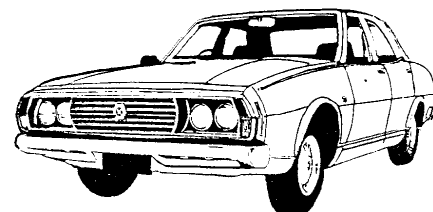




Leyland P76 Owners Club
Incorporated Queensland



Leyland P76 Anything But Average

March 2011

THE QUEENSLAND BULLETIN



FEBRUARY CARS FOR THE MYSTERY RUN

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General Information

AIMS OF THE P76 CLUB

1. To restore and actively use all model of P76 produced.
2. To provide knowledge, advice and parts on the P76 and its variants.
3. To conduct various activities for the members and their cars.
4. To include any vehicle assembled in the Zetland factory.

Membership of the club will be open to anyone who is interested in pursuing the aims of the club

The Leyland P76 Owners Club Incorporated Queensland has its monthly Meetings on **2nd Friday** of each month:

Venue: Mt Petrie Primary School
Mt Gravatt-Capalaba Road
MACKENZIE, QLD (Entry is via Vivaldi Street)
Time: 8.00pm

Various activities are organised by Club Members and are generally held on the last Sunday of the month. All venue information is confirmed at the General Meeting and is recorded in the Minutes.

CLUB MEMBER OF THE YEAR POINTS ALLOCATED

Attend Meeting = 1 point: Raffle donation = 1 point: Organise Event = 1 point: Win Event = 1 point

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From the Editors Desk

Hi all

Richard and I have just arrived home from a holiday in New Zealand where we spent most of our time with family and getting to know our 1 year old grandson. We were lucky with good weather and did a lot of travelling. We had forgotten how small New Zealand was with single carriage main roads and a lot less traffic than Queensland. It makes for enjoyable driving apart from crazy tanker drivers who are in a hurry and tail gate when they can't get past another vehicle. Apart from a few crazies on the road the scenery is something everyone should see. We travelled to Central Otago and bought fresh fruit and vegies as this area has many orchards and wineries. The new potatoes are great tasting over there and many thanks to my Dad who had grown some for us. I did buy some marshmallow Easter eggs (my favourites as some of the New Zealand members are well aware of) and look forward to enjoying them next month.

To all those who have been affected by the Christchurch earthquake, whether personally or know someone there, we are thinking of you. It has been such a devastating disaster. The news reports have been detailed and many of us moved with the destruction it has caused.

The Mystery Run out Beaudesert way in February sounded like a good day out. What fantastic views over the Fassifern Valley. And, the guys got to poke around someone's P backyard. The cover picture is the three P76s that went on this run Neville's Nutmeg Targa, Rogo's Omega Navy Targa and Daryl's Bitter Apricot Deluxe. See the article 'February Mystery Run' later in this magazine.

Our next outing is on Saturday 26 March at the Yatala Drive-In Theatre for the 'Back to the 50s Classic Night'. This starts at 3pm with the car show then Two Big Double Feature Movies on both screens. Admission includes the car show and the movies. Trophies, prizes and lots of giveaways, live Rock 'n' Roll Band, food, memorabilia, classic cars, hot rods. It truly is a step back in time to the 1950-1960s reflecting the Rock 'n' Roll Era & Classic Cars. This is a great day out and a good place to take your car for the public to see it. The cost is \$18.00 per adult and \$10.00 per child. Hope to see many members there.

Easter is next month and we have our two yearly State of Origin get together which is being held in Inverell this year. Please see information later in this magazine as to accommodation details and proposed itinerary for the long weekend.

Happy motoring and safe driving

Murphy's wife borrowed his car and parked in the supermarket car park. Just as she came out laden with shopping, she saw a young lad break into the car, hot wire it and drive off. Naturally she reported the matter to the police.' What did he look like?, the sergeant asked. 'I don't know' she replied, 'but I got the licence plate'.



General Meeting Minutes

Minutes of the Leyland P76 Owners Club Incorporated Queensland General Meeting held on Friday 11 March 2010

The meeting was opened by the President at 8.15pm and guest Col Sands was welcomed

Apologies:	Garth Morris, Warren Ashworth,
Treasurers Report:	In the absence of the treasurer there was no report.
Minutes of Previous Meeting:	The minutes of the February meeting were accepted as a true and correct record. Moved Pat Rogerson, seconded Adrian Spencer
Business Arising:	<ul style="list-style-type: none">• Discussion re 2012 Nationals• Inverell update from Adrian• Graham has the key rings which are \$1 each
Incoming Mail:	Magazines received from Westwords, Classic, Penzed Postal Mail <ul style="list-style-type: none">• Shannons• Australia Post Invoice• Enquiry for parts• Big A poker run in WA Inwards Email Coach House Nil
Outgoing Mail:	Nil
Spare Parts:	<ul style="list-style-type: none">• Parts from Lismore• Parts sent to WA• More parts yet to be got from Lismore• Gasket repayment should have been sent 31st January
General Business:	<ul style="list-style-type: none">• Deluxe models being painted and due at Easter• Richard suggested a check on the condition of your brake hoses• K Myers wants a sender unit due to ULP and ethanol• Steve Maher wants a list of wagon model buyers and also the money• Pat had a phone call from Kilcoy from a member who wants yellow bushes• Adrian saw a white P76 in Toowoomba• Richard asked about the sizes of rear wheel cylinders• John old and Marina stuff• ebay seat fabric \$275• Fridge magnets
Upcoming events	Drive-in 26 March Ormiston swap on 27 March Mcleans Bridge at Lakeside
Meeting Closed	9.20 pm

March Outing

Saturday 26 March 2011 – Drive in at Yatala (Back to the 50s Classic Night). This starts 3.00pm with a car show followed by two big double feature movies on both screens. Details in the Editor's Report.

April Outing

22-25 April 2011 (Easter) – Car Club State of Origin at Inverell. See details later in this magazine regarding this interstate get together.

The local council could not afford a speed camera, so they put up a sign saying:
Slow down Old People's Home - It had no effect.

At the next meeting they decided to play on the paternal instincts and put up a sign:
Danger - Children at Play - The result was no discernable reduction in traffic speed.

Then the chairman had a brain-wave and suggested they try a sign with:
Nudist Colony - As a result of the Nudist Colony notice, vans and lorries crawl though the village.



2011 Club Events Calendar

March 2011

26 Saturday Club Outing Drive-In at Yatala

April 2011

8 Friday Monthly Meeting 8.00pm at Mt Petrie School

22-25 Easter Club Outing Weekend at Inverell (Car Club State of Origin)

May 2011

13 Friday Monthly Meeting 8.00pm at Mt Petrie School

29 Sunday Club Outing Maleny

June 2011

10 Friday Monthly Meeting 8.00pm at Mt Petrie School

26 Sunday Club Outing Rail Museum Rosevale

July 2011

8 Friday Monthly Meeting 8.00pm at Mt Petrie School

31 Sunday Club Outing South Coast Restoration Open Day Pimpama

August 2011

12 Friday Monthly Meeting 7.30pm at Mt Petrie School

Annual General Meeting 8.00pm at Mt Petrie School

28 Sunday Club Outing Fish n Chip Run or Festival of Flight

September 2011

9 Friday Monthly Meeting 8.00pm at Mt Petrie School

18 Sunday Club Outing All British Day at Tennyson

25 Sunday Club Outing Tram Museum at Ferny Grove

October 2011

14 Friday **Monthly Meeting** 8.00pm at Mt Petrie School
30 Sunday **Club Outing** Queensland Motor Neurone Disease Luncheon

November 2011

11 Friday **Monthly Meeting** 8.00pm at Mt Petrie School
27 Sunday **Club Outing** Christmas Lunch

December 2011

9 Friday **Monthly Meeting** 8.00pm at Mt Petrie School

2011 Swap Meets and Events

March

20 **Historical Motorcycle Club of Qld Sunshine Coast** at Maleny Showground
Phone: 0434822418
27 **Ormiston Swap - Bayside Vehicle Restorers Club** at Ormiston State School
Phone: 38231794 or www.baysideclub.org.au

April

3 **Automobile Restorers Assoc Gold Coast Swap** Opp Carrara Sports Complex
Phone: 0431608993
10 **Shannons Queensland Autospectacular** at Willowbank Raceway
Phone: 33292222 or www.queenslandautospectacular.com.au

May

15 **National Motoring Heritage Day** at MacLean's Bridge at Lakeside
www.macleansbridge.com
15 **Gatton Swap** at Gatton - email: sec.lama@hotmail.com
29 **The Brisbane Swap** at Capalaba State College School Road, Capalaba
Phone: 0412 076 846 or 0421 565 202 or www.qvva.org

July

10 **Original Gold Coast Swap** at Mudgeeraba Showgrounds - Phone: 5530 5559
17 **RACQ Motorfest** at Eagle Farm
30 **Sunshine Coast Antique Car Club Swap Meet** at Nambour Showgrounds
Phone: 07 54768388

August

14 **Vet & Vintage Chev Swap** at Rocklea Showgrounds - Phone: 0412183804

September

10 **Gympie Historic Car Club Swap** at Gympie Showgrounds - Phone: 54822303
18 **Annual Beaudesert Swap** at Beaudesert Show Grounds
beaudesertswap@yahoo.com.au or <http://carclubs.shannons.com.au/beaudesertdrac>
18 **IVVVA Bundamba Swap** at Ebbw Vale Soccer Grounds - Phone: 3201 8911
18 **All British Car Club** at Tennyson - Phone: 042978980
24-25 **Cleveland Old Truck Show & Swap Meet** at Cleveland Showgrounds
Phone: 07 5448 8246 (to be confirmed)

October

1 **Toowoomba Swap Meet** at Souths Football Oval, Baker St Toowoomba
Phone: 0407 353 959
2 **Toowoomba All Holden Day** at Souths Football Oval, Baker St Toowoomba
Phone: 0407 353 959

November

5 **Hervey Bay HS P&C Swap Meet** at Hervey Bay High School Ovals
Phone: 07 4194 3759 (7am-3pm) or 0408 455 447 or email: pcurr6@eq.edu.au
27 **Beaudesert Little Athletics Swap Meet** at Beaudesert Showgrounds, Beaudesert
Phone: 0419 981 940 or Email: karen.d@scenicrim.qld.gov.au (to be confirmed)

***Many thanks for dates and details of upcoming swap meets supplied by:
Pacific Highway Auto Recyclers, Elliot Drive, Yatala***



President's Report

Well, so far so good. The discovery is behaving itself enough for me to plan a shakedown run with it to try out the new camper trailer. We plan to go to Boonah for an overnight stay just to go through the set-up and pull-down of the tent and see how comfortable we will be. This is before we hope to go to Rocky just prior to Easter.

The mystery run from Beaudesert went well with people enjoying themselves. There were three P76s being flanked by 2 modern 4WDs. A more detailed report is in this mag. Why not join us next time even if in your modern car.'

We have some great runs coming up this year; the next being the drive-in at Yatala this month. April outing is the get together week-end at Inverell during the Easter break. Check the magazine for all the events coming up. You never know, there might be a run to suit you. We try to have runs to all points of the compass (except eastwards too far) and also a variety of events to suit most tastes. If you have suggestions for a run please let us know and we will try to accommodate.

I would like to remind members that The All British Day is on the 18 September. This is THE show that promotes and showcases all the British clubs. We can do better than a four car display to promote the club this year. It was only two years ago we had 10 cars lined up. Rogo even remembered when we used to take out the club trophy.

Enough ranting for now, so until next time, keep on motoring.
Carle

Inverell (State of Origin) - Easter 22 – 26 April 2011

**Fossickers Rest Tourist Park, Lake Inverell Drive, NSW 2360
Phone (02) 6722 2261**

Proposed Itinerary

Arrive at Fossickers Rest Thursday evening / Friday morning

Friday

Breakfast cooked by Scouts (proposed) followed by meet and talk

Morning Tea/ Lunch - Olive Farm for Taste Testing

Afternoon Tea/Dinner Proposed to go on from the Olive Farm to Compton Dam and look at the sun going down and get a Fish & Chip tea. (Available if the numbers are right)

Saturday

Breakfast cooked by Scouts (proposed)

Travel out to the 7 Oaks for morning tea lunch and walk around looking at how to fossick.

(May want to come back Monday or Tuesday for the full day)

Afternoon at the Motor Museum and have BBQ diner and a talk from the locals about the Museum and then off to the RSMC for the rest of the evening.

Sunday

Breakfast cooked by Scouts (proposed)

The rest of the morning maybe a run to the King Plains Castle (possible site for Nationals 2014 has accommodation for 100 or more people) and Car Show in Inverell with the Inverell Antique Car Club. Dinner at the RSM Club (looking at Buffet or Counter Tea or BBQ with presentation).

Monday

ANZAC day celebrations dawn service and gaming (two up)
Farewell or off to other activities

Fossickers Rest Tourist Park Accommodation -

Cabins:

Deluxe \$100 p/n Corporate \$105 p/n Budget \$60 p/n Villas \$140 p/n Standard \$80.00 p/n

Prices are for 2 people. Extra adults are \$10.00 p/n and children 3-14 years \$5.00 p/n.

Linen hire is \$10.00 double/queen and \$5 single per stay.

They also have caravan and tent sites

February Mystery Run – by Carle

The Mystery Run meeting point was 9.30am at Macdonald's Beaudesert. A couple of members got there early as they had read the paper about the Ormiston Swap being on and wanted to go to it first. However, the swap is being held in March so might as well go to Beaudesert and wait for the rest of the convoy. Everyone was basically there by the time Rogo turned up. Neville (being a late start) was only 10 minutes away. As this was a mystery run part of it was a mystery to me as well!

Everyone received a run sheet on how to get to the first planned stop. Eventually we set off on the big trip; first unplanned stop was 3 km away at member Geoff's place to look at his collection of Leylands while the ladies chatted under some shade. Thanks to Geoff for letting us crawl around his shed and look at future dreams and ideas.

From there we drove a longer distance this time, all the way to Boonah, by-passing the CBD and on to the near-by national park of Mount French. At the top there is a bush picnic area and toilets but best of all there is a pathway to the look-out overlooking the beautiful Fassifern Valley. This is part of the reason the area is known as the scenic rim. After admiring the views, it was then time to hand out the second part of the run sheet.



We left Mount French and travelled via Mount Alford (small town) and in the back way to Moogerah Dam or, more specifically the picnic area at the dam wall. We got a good position under cover and handy to toilets, BBQs and the kiosk. Most of us went to the kiosk to buy lunch and boy they were busy but it was great to wait in the cool air conditioning. Back at the picnic table everyone enjoyed the food and the banter. One of the features of this particular dam, apart from the water over the spillway for the first time in 19 years, was the walk over the wall itself which several members took advantage of.



Rogo dragged out some old club magazines and a large interest was shown in them, as well as the nearby Muslims cooking away and members guessing the ingredients they were using as they went in the pot.

Rogo bragged about how well known he is. When we packed up the cars ready to leave, a car drove up and said "You're Rogo aren't you? We were your neighbours years ago." One thing about fame Rogo, you can't go anywhere without being noticed.



On the run we had three P76s (Bitter Apricot Deluxe V8, Omega Navy Targa and Nutmeg Targa) and two 4WD escort vehicles. Oh and shock, my wife came along as we were going to our favourite place, good to have her along. To top off a great day, the weather remained beautiful and not too steamy.

A group of pensioners were discussing their medical problems at the Day Centre coffee morning.

'Do you realise,' said one, 'My arm is so weak I can hardly hold this coffee cup.'

'Yes, I know.' replied the second, 'My cataracts are so bad I can't see to pour the coffee.'

'I can't turn my head,' rejoined the third, 'because of the arthritis in my neck.'

'My blood pressure pills make my dizzy,' commented the fourth, adding, 'I guess that's the price we pay for getting old.'

'Well, it's not all bad.' piped up the first, 'We should be thankful that we can still drive.'

Starter Motor Problems

Recently, some P-nutz, whilst doing some preparations to their P's before the big gathering at Gunnedah, had a bit of trouble with their starter motors. Now, most P-nutz know that our starters were designed by the Prince of Darkness, Mr Lucas himself, and it is often rumoured that he invented the concept of planned obsolescence in order to boost the sales of spare parts. Personally, I think that the starter motor for P-76's were pretty good little units, because many starters have good service for years before any servicing became necessary, and most of the problems blamed on P-76 starters were actually faults in the wiring harnesses.

This Tech-Tip deals with starter motor solenoids, which are usually fairly reliable little critters. When one considers that the amount of current which gets switched by these dudes is more than enough to melt metal under the right or wrong circumstances, it is a good thing that they are built as well as they are. I will attempt to explain what they do (when they are working properly) and how you can do some basic fault-finding when your starter doesn't want to play. To best understand this Tech-Tip, you might like to have a spare solenoid handy as you read through this article.

When a starter motor doesn't operate as it's supposed to, there are a number of things which you will need to check to determine which component, if any, is faulty. Most workshop manuals have a fault-finding list of things to check to identify the cause of starter motor problems, so I won't go over that ground again in too much detail.

Basically, a solenoid is an electrically-operated heavy-duty switch, which does two things at the same time when it is operating correctly. When the ignition key is turned to the "start" position, power is fed to the internal solenoid coil via the "sw" terminal, and when the coil is energized, it draws the solenoid piston in towards the end cap of the solenoid. Which means that the piston travels towards the front of the vehicle, moving the starting motor pinion towards the rear of the starter motor armature shaft, and causing it to mesh with the flywheel ring-gear, to turn the crankshaft and start the engine (if you're lucky, and about twenty other things are working properly!).

When the solenoid piston moves up into the solenoid body, it also presses on a little plunger thingy, which in turn pushes a movable internal contact so that power or current flows from the outer (heavy) battery cable terminal to the inner heavy terminal, which is directly connected to the starter motor armature and field windings. IF everything in your P's wiring system is in a good mood, the power will go where it's needed and the starter motor will turn the crankshaft, your engine might just burst into life! Surely it's a miracle of modern engineering.

So, if everything is happy in the P 76 starter land, turning your ignition key to the "start" position will make your engine go. But, if you turn the ignition key, and instead all you hear is a muted "click-click-click" while the key is held in the "start" position, that means that there is not enough power to make the solenoid operate properly, and that means either a flat battery or dirty connections in the starter wiring.

If you turn the key to start, and all you hear is one "click" or faint "clunk", this usually means that the solenoid is moving, or trying to operate, but for some reason, the starter armature is not kicking into life. These symptoms usually indicate either dirty or burnt contacts in the solenoid switch itself, severe voltage drop in the starter wiring, or perhaps the armature brushes are badly worn.

Bench-testing a starter to pin-point the cause of trouble is fairly straight forward. When you do a bench-test, you just have the starter securely clamped in a workshop vise so it cannot move. You should use a battery which is known to be fully charged for the bench-test. First, carefully connect a spare heavy battery cable from the battery positive terminal to the outer terminal on the solenoid.

Next, connect a spare earth lead from the battery negative terminal to the body of the starter.

Next fabricate a switch wire using a suitable length of 3 or 4mm diameter cable, and crimp a female spade terminal on to one end of this wire. This wire should be of the same size and current capacity as the white wire with the red trace which serves as the starter switch wire in the standard P76 wiring harness. Next, strip about 10mm of insulation from the other end of the switch wire, and twist the exposed strands together. Push the female spade terminal firmly onto the upper or outer male spade terminal on the solenoid end cap. Usually, the upper terminal is marked with the letters "sw" which denotes the terminal for the switch wire. Now, briefly touch the other end of the switch wire to the positive terminal of the battery. There should be a loud "clunk" as the solenoid operates, immediately followed by the starter motor starting to spin. Do not hold the switch wire onto the positive terminal for more than a few seconds.

If the starter does not operate when the switch wire is touched to the battery positive terminal, it usually means that the terminal solenoid contacts require servicing or replacement. If there is a loud 'clunk' and the pinion gear moves along the armature shaft, but the starter does not spin, then there is definitely a problem with the starter itself. This is job that is best left to a trained and experienced auto-electrician, as a bodgy job on any part of your starter motor can quite easily lead to an electrical fire, which can destroy your vehicle and that's why I don't recommend that you try to replace your starter motor brushes yourself. However, if help is too far away and you have a few basic workshop tools, you can strip and clean the solenoid yourself.

Just to check that the solenoid itself is the source of the problem undo the heavy cable from the (large) outer solenoid terminal and touch it briefly to the inner (large) terminal. If the starter motor starts to spin freely, then we know that it is probably quite alright and the contacts in the solenoid cap itself may be suspect.

To remove the solenoid from the starter, first you will need to clamp the body of the starter securely in a work shop vise. Next, you will need to undo the large nut which holds the short braided copper cable onto the inner large bolt on the solenoid cap. Next, undo the two 7/16" nuts which hold the body of the solenoid onto the end housing of the starter motor. With a little careful jiggling, you should be able to draw the solenoid away from the end housing. Take care not to lose or drop any of the components. With jobs like this, it's a good idea to remove them, to place all parts into a clean container such as a plastic ice-cream tub which has been thoroughly cleaned. When the solenoid has been removed from the end housing, the solenoid piston, spring and connecting arm should still be loosely attached to the pinion arm, which is attached to a pivot pin inside the end housing. The solenoid piston and connecting arm can be removed from the pinion arm simply by pressing the piston gently towards the end housing, while applying some upwards pressure. You should then be able to slide the connecting arm up and off the end of the pinion arm. Put these parts aside for later inspection.

To dismantle the solenoid, you will need a good quality soldering iron, equipped with a thin soldering point. Firstly, clamp the metal studs of the solenoid body firmly in a vise and use the soldering iron to heat and remove the solder which holds the wire which is soldered to the base of the "sw" spade terminal. Take care not to break this wire as it must be re-soldered to the terminal when you are re-assembling the solenoid. It may help to use a flat bladed screwdriver to clean the solder off the terminal while applying heat to it with a soldering iron.

At the base of the large inner bolt, there is a nut which holds a small metal plate against the face of the solenoid end cap. There is a second wire soldered to the face of this plate. Remove the nut and use the soldering iron to remove the solder that holds the end of the wire to the plate. When all the solder has been removed, remove the two Philips head screws which hold the end cap to the solenoid body. (The original style of Lucas solenoids use Philips head screws to hold the plastic end cap on to the solenoid body, while the Ingams solenoids use hex-headed screws.) If all of the solder which was holding the two copper wires has been properly removed, you should now be able to gently lever the plastic housing away from the solenoid body.

Inside the solenoid cap, you will find a small piece of copper shaped like a rectangle, with a few

notches along each side. This is the moveable contact which does the actual job of switching the power from the outer to the inner solenoid bolts. It will have an insulated hub, with a brass pin pressed through its middle. To make the starter operate, the solenoid piston presses against the brass pin to move the contact plate up against the heads of the two large bolts inside the solenoid cap. There are two small coil springs inside the solenoid cap. One is captive on the brass shaft and the other is free fit on the shorter end of the brass shaft. Its job is to prevent the moveable plate making accidental contact with the heads of the large bolts. Examine the condition of the contact plate. If the side which faces the two bolts is pitted, rough or corroded, then the contact plate will need to be either cleaned or replaced.

Examine the condition of the heads of the two bolts inside the plastic solenoid cap. If the heads of the bolts are pitted, rough or corroded, then you will need to remove the bolts from the plastic housing and clean the heads so that a good electrical contact will be made when the moveable contact is pressed against them. It is a good policy to replace these three items when you service the solenoid, if you can locate suitable spare parts via your local auto electrician. Before re-assembling the solenoid, thoroughly clean all components and ensure that there is no oil or moisture present inside the plastic end cap.

Before you attempt to re-assemble the solenoid, use a very fine drill to remove all old solder from inside the holes where the two wires fit. This will make it much easier to re-insert the two wires into the end cap without damaging them. Carefully match up the solenoid end cap to the body. If you check it out carefully, you will see that the positioning of the two wires in the end cap is not symmetrical, so the cap can only be mated to the solenoid body in one position. When the two wires have been pushed fully through the holes in the end cap, hold the end cap against the solenoid body and refit the two Philips head screws. Use only enough heat from the soldering iron to get the solder to flow around the two copper wires when you re-attach them to their respective terminals.

As mentioned above, the solenoid functions as a heavy duty switch when it operates the starter motor and there is a serious risk of fire if repairs are not carried out in a proper manner. If you have any doubts at all about whether the solenoid can be re-assembled correctly, don't take chances – put all the bits in a plastic bucket and hand the job over to your local auto electrician. It is far better to pay out a few extra dollars to get the job done properly than to have your P suffer a starter motor melt down.

If your starter motor turns only sluggishly, even with a fully charged battery, it may be "poling" which is a fault which occurs when worn bushes or bearings allow the armature to drag against the field windings. This is definitely a job for a qualified auto electrician, because any faults in starter motors have the potential to cause a fire in your P-76, so don't take any chances.

And here is another little Dr. Philthy Tech-Tip which may just save your P from a major electrical fire: Quite a few P's are still getting around with their original thirty something year old battery cables still in place! These cables may still be operating quite alright, but there is a serious risk of fire because the insulation on most of these cables will by now be pretty much dried out. In some cases, there will be serious cracks, chafing or wear marks on the cable's insulation. So don't take any chances. Either buy a nice new (positive) battery cable and clamp it securely in place so it won't get chafed, or, at the very least, remove your old one and slide a length of old garden hose along it to provide an extra layer of insulation. Check the condition of your earth leads too. Make sure that the connections at both ends of your earth leads are clean and dry and free from corrosion. In the old days, many a P-nut went to the expense of buying a new battery only to find that their starter problems were caused by dirty battery lead connections! Remember, when there's an electrical problem in your P, always check the basic things first!