Lagondaforum: Dynamo removal

Dynamo removal

Written by Edward at Dec 02, 2017 5:32 pm

I'm a Lagonda novice and loving my 2-litre, but it doesn't seem to be charging - only 2-3 V with a meter on it as far as I can see. I imagine therefore that I need to remove it and get it rewound, but it looks as though all the engine oil could come out of I remove it. Do I need to drain it, or is there a way to remove it more simply? I tried undoing the four nuts on the outer flange but it wouldn't budge...Any help gratefully received!

Re: Dynamo removal

Written by Colin M34 at Dec 03, 2017 10:23 am

Hi Edward

Welcome to the 2 Litre fraternity. Presumably yours is a low chassis car with the dynamo sticking out the front. The oil should hopefully not gush out if you remove it as it is bolted to the timing cover. Give everything a good clean and check for continuity. This might bring it back to life.

Colin M34

Re: Dynamo removal

Written by h14 at Dec 03, 2017 12:14 pm

As Colin states, a good dismantle and clean should be your first move. In particular, make sure the commutator is shiny bright copper where the brushes bear. Degrease if necessary first, then remove tarnish with an ink rubber, or if stubborn, some fine emery paper...blow or vacuum any dust away. Check for worn brushes, or brushes sticking in their holders. Take care to ensure (if there is a possibility of alternative fitment) that brushes are fitted in their original positions. Attention to these areas will resolve 90% of charging issues with the dynamo itself. Poor output could of course result from poor connections in your wiring, or of course, the voltage regulator itself. To edit folllowing Colin's correction below...wasn't sure when voltage regulators started to be fitted! At least the 3-brush arrangement has the virtue of simplicity, and reduces the number of items to check when faults occur.

Laurence

Re: Dynamo removal

Written by Colin M34 at Dec 03, 2017 1:50 pm

Hi Edward,

Just to add to Laurence's wise words. You would not normally have a voltage regulator on your car because it has a "third brush" which activates the field. This turns the dynamo into a constant current device. There are two settings - "Winter" and "Summer". The first one is higher and typically 10 amps. The 3rd brush is moved so that with all the lights on the dynamo is just charging the battery with around 1.5 amps. With the lights off this will overcharge the battery so the summer setting trickle charges the battery.

I have modified my 2 Litre dynamo to turn it into a constant voltage type with an external solid-state regulator. This works pretty well.

I hope I have adequately explained this lot here...

Colin M34

Re: Dynamo removal

Written by Mark at Dec 04, 2017 8:27 pm

Hi Edward

I think the above advice on the electrical performance of your dynamo is pretty comprehensive.

To answer your question about difficulty removing the unit I can advise as follows: The low chassis dynamo has a dog drive that fits into a slot in the end of the crankshaft. This has to be tight so that you do not get any chatter between crank and dynamo. To remove the dynamo remove all the bolts and the wiring and remove the end cover (so that it does not get dented). Using a hide mallet tap all around the dynamo body near its centre (the strongest point of the steel body). Slowly the dynamo will work free but make sure you support it to avoid it suddenly dropping onto the garage floor. You should not loose any oil removing the dynamo as the sump is far lower.

If you have a supercharged car the principle is the same but be gentle and take your time as you do not want to damage the blower drive box. On the blown car it is common to lose some oil through the dynamo casing when driving as there is no oil seal between the drive box, where oil is swirled around by the spiral bevel gears, and the dynamo. However, in my experience a little oil loss through the dynamo casing does not affect its performance

Hope the above helps
Regards
Mark

Re: Dynamo removal
Written by GrahamSw at May 11, 2020 9:14 pm

Quote by Colin M34:

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Colin M34

Hi Colin,
Does this mean that we need the 11 Amp electronic charge regulator circuit for a 2 litre?
Looking at removing a brush now . . .
Thanks
Graham

Attachments:
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