

# Lagondaforum: Effect of the Advance & Retard Lever

## Effect of the Advance & Retard Lever

*Written by Rich5ltr at Oct 11, 2015 8:46 am*

Chaps,

Had a disappointment yesterday. I went for a first drive in my new Lagonda yesterday and failed! Well it started perfectly after a few strokes of the KiGass but was running very rough. As it was a first drive I was concentrating on the centre throttle, mirrored gears and generally familiarising myself with the controls. Fortunately I keep it on a farm with a massive yard and long drive where I could play. Unfortunately it was only running on about half of the cylinders and despite warming it for 5 mins and running it up and down the drive I couldn't get it to clear. The farm owner was in a rush and wanted to get locked up and I wasn't dressed for getting oily (my wife was with me) so we decided to leave it for another day.

Last night I started to think of all the possibilities and given that it drove perfectly up onto the trailer to be transported home I was thinking could it be a carb needle dropped out of the piston blocking the jet? Could it have oiled the plugs? Then I remembered the advance & retard. This could easily have been knocked fully one way or the other so my question is, if this were fully retarded would the effect be that the engine would start but not run well? I can't get back to the barn for a day or two now (work) but it's something I will look at when I do.

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## Re: Effect of the Advance & Retard Lever

*Written by bill at Oct 11, 2015 10:10 am*

Perhaps you didnt fully screw the Ki Gass back in so that it was delivering a rich mixture and this then oiled the plugs ?

I would investigate the Ki Gass first of all.

But check the plugs and see if they are wet. If they are then it is fuel and not ignition. Clean the plugs and start again !

Best of luck

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## Re: Effect of the Advance & Retard Lever

*Written by Bill LG45 at Oct 11, 2015 10:53 am*

Hi Richard

Could be over fuelling but as regards the ignition:

With manual advance and retard you MUST always start fully retarded to prevent the risk of the engine "kicking back" and damaging the starter motor or housing.

Note If the engine does fire back with the starter engaged it is not uncommon for the starter shaft to get bent, or the bendix be damaged or even worst case, I have known the starter to get broken right out of the housing!

If the ignition timing is set correctly, you should be able to make the engine run unevenly in the retarded position and pink in the advanced position, with the correct setting being somewhere in between.

Proceed as follows: Having started the engine retarded, you should then advance the ignition up until the engine runs smoothly ( you will hear the revs pick up) and then when you drive off, once underway, continue to advance the ignition until the engine just starts to "pink" or "knock" and then retard the ignition back until the pinking just disappears, the ignition will then be in it's optimum setting for smooth running and maximum power.

You may need to retard the ignition slightly when climbing a hill and then advance up again when on the level.

When you have driven the car a few times you should get to know roughly where the correct position is on the quadrant.

When driving a manual advance car a lot of folk generally set it to fully retarded as they leave the car to avoid accidental start up in the advanced position, I believe that is good practice.

Note: If the points gap is incorrect this will effect the timing as well as cause poor running.

A final comment, you say the car is kept on a farm, magnetos do not like being left in unheated or damp conditions condensation inside the mag or distributor cap will cause havoc!

Hope that helps

Bill

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## Re: Effect of the Advance & Retard Lever

*Written by Rich5ltr at Oct 11, 2015 7:48 pm*

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Thank you to you both the help and advice, I will check everything that has been said. p.s. Yes it's a farm but only in name, no animals and the building is modern dry and climate controlled.

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### Re: Effect of the Advance & Retard Lever

*Written by cahallett at Oct 12, 2015 4:33 pm*

Hello Rich,

I would get a new set of plugs (NGK AB6 or AB7 are good for the 16/80) and gap them correctly (0.018" or 0.020").

I would then check that your magneto's points are gapped correctly (0.012").

Definitely check that your Ki-Gas is screwed home fully.

Check also that both carburettors pistons drop smoothly & simultaneously (stick a finger in both carbs at the same time, lift up the pistons and then let them drop. Both should make a nice clunk at the same time (if they don't or if they take too long to drop, take off the dash pots and give them a good clean with WD40, then refitting with a small drop of bicycle oil under the cap. If that doesn't do it then you need to check that the jets are centred correctly.

With regard to retard/advance, it depends a lot on how your car has been set up.

I think the recommended 16/80 fully advanced set up is 45degrees before TDC but with modern fuels it can be as much as 54degrees as on my car. For sure if you start the car in the fully advanced position, it will not idle smoothly & probably sound like its missing a beat or two until the engine has warmed up considerably (it will also probably stall).

I always start fully retarded which on my engine gives a nice smooth idle and advance it to near full if the car is warm and as soon as I pull off (fully advanced once nice and warm).

I only find the need to retard the engine slightly on very steep hills when the power is coming off or in very slow town traffic & then not by much.

You will like Bill advised get the feel for what your cars wants with use.

Actually having just re-read what I have written, just fully retard the mag and give your car a start.

Then if it still sounds like it's not firing nicely on all cylinders, check all of the above.

You will want to check out all of the above at some point soon anyway (along with correct valve/tappet clearances).

Once you are up and running I would highly recommend a visit to a rolling road.

They will be able to get your engine timed up perfectly and it will not only give you optimum performance but better fuel economy.

Best of luck

Chris

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### Re: Effect of the Advance & Retard Lever

*Written by Rich5ltr at Oct 12, 2015 10:58 pm*

I appreciate the advice, thanks although I have to say "rolling road" yikes, I didn't realise they had people skilled in magnetos and stuff or do you just do it yourself while the chaps run the rolling road. 🙄

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### Re: Effect of the Advance & Retard Lever

*Written by cahallett at Oct 13, 2015 12:23 pm*

No it's not that scary at all.

You will have gapped your magneto already, so all they will do is strobe your flywheel as you advance and retard the mag adjusting the Vernier couplings if required until you get the optimum performance (this might be at 44 degrees BTDC, 50 degrees, etc... etc...

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What they are really ace at, is getting your carbs adjusted perfectly.

It's a good experience and worth every penny (I think I paid £80.00 for just under an hour the last time I went, but I now get 80 BHP at around 4,200rpm & 22mpg instead of 16mpg)

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### Re: Effect of the Advance & Retard Lever

*Written by RobO at Oct 18, 2015 10:22 pm*

Rich,

I've been looking at the forum daily to see how you're getting on. Any news over the weekend?

All the best

Rob

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### Re: Effect of the Advance & Retard Lever

*Written by cahallett at Nov 05, 2015 1:58 pm*

Hello Rich,

How are you getting on?

Best Regards

Chris

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### Re: Effect of the Advance & Retard Lever

*Written by Rich5ltr at Nov 21, 2015 2:23 pm*

Ok chaps, hands up and big apology time. Since I started this thread I have not been back to the Lagonda to test out my theory about the retard/advance. I have been exceptionally busy at work with events, conferences, customer meetings and new people starting (good for business but less good for my hobby) and... with the car being in a secret, secure storage unit to which I don't even have the door and alarm access codes, I've just not been able to get back to drive it.

This week my new guys are in France on training, I have no customer visits, conferences, or exhibitions to attend and I plan to get to Marlow and start up the car.

I will report back. 😊