

Lagondaforum: 2 Litre camshaft/valve timing manual

2 Litre camshaft/valve timing manual

Written by oakley at May 03, 2009 6:55 pm

After several years of consulting a great number of "experts" who gave me conflicting information, I decided to use my own brains and have now come up with a simple yet accurate manual for timing the camshafts/valves of the Lagonda 2 Litre engine.

It has been tested and approved by Peter Jones, the world's best expert on Lagonda 2 Litre engines.

Let me know if you are interested and I'll email you a copy.

Re: 2 Litre camshaft/valve timing manual

Written by Colin M34 at May 03, 2009 8:29 pm

I would like to add to what Oakley has said about conflicting opinions on various technical aspects of 2 Litres. I write this from my background of having worked in industrial research for the last 40 years in the ICT field. One of the fascinations with Lagondas in general, and 2 Litres in particular is that there is a no right or wrong answer and NOBODY is the BEST expert - IMHO there are just shades of opinion that deserve respect more than others.

This is perfectly normal in academic and industrial research where respect is earned by peer review. I used to work with a gentleman called Phil Ridout who died a few years ago. He was a very precise and hugely respected industrial researcher who happened to have a lifelong passion - 2 Litre Lagondas - both blown and unblown ones. Many of you may have known him. For some 35 years, Peter Jones and I together shared the incredible fund of knowledge that Phil amassed regarding 2 Litres - and gave it freely and with great enthusiasm. Peter and I have both enjoyed adding to this fund of knowledge by sharing our own discoveries as well.

One of the first fruits of Phil's retirement was the design of the 2 Litre downdraft cylinder head. I bought one of the first batch some 15 years ago from Wessex workshops. Before he died, Phil, with Peter, then went on to consider camshaft timing and remember, this is a complex topic without a right or wrong answer. I would therefore always respect advice from this quarter and my camshafts (standard profile) are timed to Peters suggestions, and the car goes really well.

However, Phil was quite a modest man - as many respected researchers were - and he was the first to get excited about new thinking - so he was the ideal person to peer review other people's opinions and ideas. There are bound to be conflicting opinions - often passed out as 'information', and I learnt from him that sharing knowledge can help us all of us form an opinion about what is the best answer to help us to enjoy our hobby more.

For this reason so I look forward to reading Oakley's contribution to the body of knowledge on Lagonda 2 Litre engine and will value it highly as an addition to my own fund of knowledge. Much of this, like Peter's, was derived from enjoyable time spent with Phil, bless his memory.

Readers might like to note that the Club is making new 2 Litre timing sprockets, to go with the camshaft spiders and bushes already in production, so accurate timing can be done with good new components.

Colin M34

ps. This forum is a very good place to air this topic and others like it.

Re: 2 Litre camshaft/valve timing manual

Written by oakley at May 06, 2009 8:47 am

May I point out that when I said I received "conflicting information" it was not about the timing of the camshafts/valves itself (which can indeed vary and depend on the preferences of the driver of the car) but about the METHOD of doing it.

There are several ways of doing it, some simple, some complicated, some accurate, some less so, but there are also ways of doing it wrong.

That is what I meant when I wrote that I received conflicting advice and therefore I produced this manual which is simple, accurate and thoroughly tested.

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Re: 2 Litre camshaft/valve timing manual

Written by oakley at Jun 17, 2009 9:50 am

I have send copies of my 2 Litre valve/camshaft timing manual to a number of members, but would like to add that after some trial and error I discovered that the optimum timing for the Newman camshafts as supplied by the Lagonda Club is for the inlet valves to open at 15 degrees BTDC and the exhaust valves to be fully closed at 12 degrees ATDC (unchanged), resulting in an overlap of 27 degrees.

I have discussed this with David Newman himself and he agrees with these values, rather than the original specifications of 12/12. It makes a surprising difference; the engine runs much smoother with this setting and is significantly more economical on petrol.

Re: 2 Litre camshaft/valve timing manual

Written by Colin M34 at Jun 20, 2009 8:11 pm

Hi Hans

This is interesting information! Can you tell us the typical MPG you are getting with the new cams and downdraft head?

Re: 2 Litre camshaft/valve timing manual

Written by oakley at Jun 22, 2009 3:05 pm

I average 27 MPG with my Lagonda 2 Litre - a bit better if I would always stick to the speed limits and drove somewhat more carefully! Because of the high-compression pistons, I use Super ("four star" or 97 octane) petrol.

Re: 2 Litre camshaft/valve timing manual

Written by oakley at Jul 31, 2009 7:29 am

I did a lot of driving over the last few days and I have done a more accurate measurement of the fuel consumption of my car and I fear that it is somewhat less optimistic. It turns out to be 24 mpg; still quite nice for a 2 Litre and certainly better then with the previous valve timing. Also the car runs much smoother.

Re: 2 Litre camshaft/valve timing manual

Written by oakley at Sep 17, 2009 3:23 pm

I have to get back on that last report - insofar that during a just completed 10 day drive of 1100 miles through northern Spain and the French Dordogne I was able to do a very accurate measurement and the final conclusion is that my 2 Litre Lagonda has an average fuel consumption of 26.5 MPG.
