

## Lagondaforum: Unleaded Conversion...

### Unleaded Conversion...

Written by randall977 at Jul 19, 2011 3:35 pm

Mainly because I'm bored of seeing 'head removal tool' as the only topic in this section, I have a question; What good reason is there (based upon fact) to convert a DB5 engine to unleaded? It already has hardened valve seats which were fitted in the factory, it is unlikely that an after market replacement will be any better...discuss

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### Re: Unleaded Conversion...

Written by TVJL at Jul 19, 2011 9:40 pm

Not much to discuss, I'm afraid. The answer is 'none'. 😞

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### Re: Unleaded Conversion...

Written by h14 at Jul 20, 2011 11:23 am

Not sure of the context here, but perhaps "conversion" referred to altering the ignition timing to suit unleaded petrol? I seem to recall that when unleaded was introduced, charts were available showing what changes to make.

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### Re: Unleaded Conversion...

Written by Colin M34 at Jul 20, 2011 7:43 pm

Hang on folks...

Surely the DB5 has an alloy head so 'of course' it would already have steel valve seat inserts...

Also, playing around with ignition timing is needed with all our old cars to match the burn characteristics of modern fuels.

Colin

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### Re: Unleaded Conversion...

Written by TVJL at Jul 21, 2011 2:26 pm

Indeed. 😊

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### Re: Unleaded Conversion...

Written by David at Jul 22, 2011 2:44 pm

Having had 2 engines done, as good a reason as any is to return the head, seats, valves, springs, collets, guides, tappets etc returned to new condition and clearances using more modern materials as necessary than were available when the head assembly was designed in 1957-58. Unleaded also burns hotter than 4-star so attention should also be paid to all aspects of cooling, especially in the head around the exhaust valve guides which are cooled directly by the water flow, and in general around cylinders 5 and 6 where flow is reportedly weaker than elsewhere

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### Re: Unleaded Conversion...

Written by Colin M34 at Jul 23, 2011 8:06 am

David's comments about fuel apply equally to all of our cars. My 1925 12/24 Lagonda ran very hot and so using modern materials for valves and seats is as valid for it as well. There is also a lot of knowledge and expertise on how to improve the circulation on the M45 Meadows engine to run cooler.

Not only does unleaded burn hotter, but with low compression engines it burns slower, hence the need to advance the timing to get the flame well and truly alight before the exhaust valve opens. The late Arthur Jeddere-Fisher, stalwart of the VSCC and legal counsel to HMRC had the law changed to allow people to legally "cut" their petrol with kerosene (heating oil) to try and alleviate this problem, particularly with Edwardian motor cars. The mixing had to be done in the car's petrol tank.

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Colin

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### **Re: Unleaded Conversion...**

*Written by bruffsup at Jul 23, 2011 1:03 pm*

Colin, Can you please elaborate on on the M45 circulation mods ? Thanks, Barry

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