

Lagondaforum: V12 conrods

V12 conrods

Written by Peter S30 at Nov 27, 2007 4:32 pm

I was wondering about lifetime of the alumin conrods, here is Mark Whiteheads Reply:

Concerning conrods: we are well aware that there were a number of failures in the original duralium (not aluminium) compenents. Without any factual evidence Jim thinks that failures may be due to the fact that during WW2 some V12's were kept in service. With the shortage of oil and substituting inferior fuels, wear in the bigends became excessive. After the war these vehicles which had been used were due for a full engine overhaul. The bigends were in most cases opened up and lined with white metal which included excessive heat to the conrod. This was a failure: whereas white metal bonded to steel rods successfully it was not compatiabile with duralium, and in consequence the white metal lining flaked away allowing the bigends to hammer on the crankshaft journals, thus leading to brittle conrods. The combination of heat treatment and this hammering often resulted in conrod fatigue

As we mentioned in our last email we had all our bigends of the original conrods fitted with slipper bearings (as well as crack tested) which eliminated the heat factor needed for whitemetalling.

If your V12 has only done 77,000miles we do not think it should require any attention to the bigends providing the oil valve mechanism, an ingeneous device for reducing the oil pressure to the overhead gear to 12/15psi, has been maintained and working. This valve is at the back of the oilfilter body located in the V. On none of our 7 engines was it working.

This oil pressure valve device was added at some stage during the production run and some early cars were converted by the works when being serviced. We will send photos which show:-

- a) *the device dismantled*
- b) *partially re assembled*
- c) *a modification we have made to check this valve is sliding.*

We drilled a small hole in the cover plate to insert a small magnet (photo 3) and tapped it to take a 1/8th tapered gas plug to block the hole when engine is running.

We are hapy to send you a full description of the function of this pressure reducing valve if you wish. If this valve sticks in the open position full oil pressure will flood the overhead gear there will be high oil consumption, high carbonisation of combustion chambers, oiled up spark plugs and slug in the oil pan.

(We have converted all our engines to a full flow oil filter system with replaceable cartridge.) Jim designed this modification about 15 years ago and we can send you illustrations of this also if you wish.

Attachments:

[2002_1127_215030AA.JPG](#) (filesize: 48.98 KB)

[2002_1127_215121AA.JPG](#) (filesize: 47.70 KB)

[2002_1127_215228AA.JPG](#) (filesize: 47.44 KB)

Re: V12 conrods

Written by Peter S30 at Nov 29, 2007 8:40 am

Here is a page from D. Bastows book "W.O.Bentley-Engineer" talking about the Duralumin conrods - just to give some more input to the discussion..

Peter

Attachments:

[Bastow-Bentley-V12.txt](#) (filesize: 4.74 KB)

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Re: V12 conrods

Written by Charlie at Mar 12, 2018 4:34 pm

I have heard there is an Allison aircraft engine con rod that can be used in a V12 engine. Has anyone got any details on this modification? I am getting quotes to get new rods made. Individual rod prices are not too bad but when you multiply by 12 and add the dreaded VAT!

Thanks

Charles
