

Lagondaforum: Brake overhaul - levers

Brake overhaul - levers

Written by DavidLG45 at May 06, 2015 6:35 pm

Some time ago I sent some of my brake parts to a company to overhaul. Brake levers etc. It seemed like a good idea at the time. They didn't do a good job with the levers and the company has since gone out of business.

I now have over size holes in the levers which leave too little surrounding metal. See photo. The two on the left are the worst. The holes with the bushes are fine, it's the others that take the forks that aren't. They drilled out the forks and put in oversize bolts. They should have 5/16 inch bolts. They are now 3/8 inch and a loose fit at that.

The parts have sat on the shelf ever since to be dealt with another day.

The forks can be easily replaced. What to do with the castings though. Replace them seems the best option. I tried a company that specialise in Girling parts back to the 1930s but they don't recognise the casting numbers or any of the levers in the photo. It seems they are unique to Lagonda?

Does anyone know of a source for these or have an alternative solution? Or do I have to get some new ones cast?

David

Attachments:

[brake-levers.jpg](#) (filesize: 106.25 KB)

Re: Brake overhaul - levers

Written by alecrb at May 06, 2015 6:53 pm

Hi David;

I'm toying with the idea of brazing in thin steel sleeves on mine. The net result should be close to original strength.

Alec

Re: Brake overhaul - levers

Written by David at May 06, 2015 8:32 pm

3D printing, would that work?

Re: Brake overhaul - levers

Written by alecrb at May 06, 2015 8:54 pm

For metals, that would be laser sintering. Very expensive! If I had to replicate parts like these, I think I would build them up from individual simple machined shapes welded together, then hand-finished to resemble castings. Once painted, they would look OK.

Re: Brake overhaul - levers

Written by alecrb at May 06, 2015 9:13 pm

This may help - It's at least in the UK!

<http://www.3trpd.co.uk/dmls.htm>

Re: Brake overhaul - levers

Written by DavidLG45 at May 07, 2015 10:07 am

Thanks for the replies.

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Machining from solid has been suggested to me. The two on the left could easily be one piece. Not sure I like the idea of having the other 2 welded in sections. I am not an engineer but I'm not convinced I want to rely on welds. . . .

Would casting be hideously expensive? I could make suitable patterns.

I have noticed that the holes in the short arms of the third lever in the earlier photo are not equally spaced either side of the pivot point (see new photo). This lever goes between the front axle in line with the brake pedal (ie right hand side). I can't think of a reason for this? The inequality will be evened out by the fact that it's floating, but why unequal in the first place? A bad casting perhaps? The holes have been drilled out by the previously mentioned "restorer" but never could have been equal.

David

Attachments:

[brake-lever-3.jpg](#) (filesize: 71.33 KB)

Re: Brake overhaul - levers

Written by David at May 07, 2015 11:24 am

The 3 points are not in a straight line either. My hazy recollection of welding is that the join is stronger than the pieces joined

Re: Brake overhaul - levers

Written by DavidLG45 at May 07, 2015 2:34 pm

Indeed they're not in a straight line. I can't see that it really matters the unequalness or am I missing something? Probably just a not very well made part?

Is getting the holes welded by a specialist and re-drilled a really bad idea ?

David

Re: Brake overhaul - levers

Written by David at May 07, 2015 6:53 pm

Won't the effort applied to each drum be different?

Re: Brake overhaul - levers

Written by Colin M34 at May 07, 2015 8:26 pm

Hi Chaps

Some thoughts:

I am not comfortable with making these items as castings. Originally they would have been forged so personally I think it would be better to go to a specialist welder the re-do the eyes on the original ones. Perhaps with a X-ray test afterwards to confirm integrity.

If you are forced to have some bits machined out of solid, look at various structural steel sections such as RSJ's and U sections to see whether new levers can be carved out of a standard section. These will have been hot-rolled so the grain of the material will be better than something machined out of a solid lump.

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I am not a mechanical engineer or metallurgist so do not rely on my inputs without further advice...

Colin M34
