

## Cylinder Head Sealing

Roger Hulett

Joined: 31 May 2004

Posts: 87

Location: South West France

Posted: Sun May 06, 2007 2:02 pm      Post subject: Cylinder heads.

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This question has probably been asked before.  
What temperatures are reached in a FS detachable head ?  
Can I use BluTack to fill in a small leak in the head ??  
Roger Hulett

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efr215

Joined: 06 Nov 2004

Posts: 121

Posted: Sun May 06, 2007 4:28 pm      Post subject:

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Certainly BlueTack would not be up to the job - I have tried to use it as a "dam" when employing the heat from an angle lamp to cure some Araldite and even at that temperature it proved less effective than Plasticine.

If you have the time you might care to employ one of the most effective repairs I have managed. It involved an ancient Johnson outboard motor some of the aluminium castings on which were, as a result of too much contact with salt water, moth-eaten to say the least. The castings were first sand blasted and then immediately coated with Araldite. The "immediately" is important as aluminium is an extremely reactive metal, the only reason why it doesn't burn like magnesium is that it instantly forms an impervious oxide layer. Build a Plasticine dam if need be and certainly use a gentle heat as the Araldite will then go very fluid before it sets and will flow into every crevice.

A quicker, but possibly less durable repair would be to scrape the area clean, (a less effective key than sand blasting), and again apply Araldite and let it set at room temperature.

Lastly there are preparations on the market from the likes of Frost ([www.frost.co.uk](http://www.frost.co.uk)). They do something called "Oyltite Stick" that might do the trick but I have not tried it.

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Roger Hulett

Joined: 31 May 2004

Posts: 87

Location: South West France

Posted: Sun May 06, 2007 5:16 pm      Post subject:

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I did not explain my problem very well. The leak is in the combustion chamber. The alloy is very pitted and a hole has developed in one of the pits. I was looking at a product called JB weld that claims to withstand temperatures of

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300C..thus my enquiry re temperatures. I have also been looking at web sites on electroless metal coatings etc as it would appear that it will be very difficult to get it welded.Are there perhaps alternatives that I haven't explored ? Buy a new head !!!!!!!

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efr215

Joined: 06 Nov 2004  
Posts: 121

Posted: Sun May 06, 2007 6:24 pm Post subject:

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In that case my inclination would be to drill & tap the head followed up with an aluminium plug glued in with some high strength Loctite. I think they even make a high temperature one these days.

I wish I had shares in the Frost mob though 'cos they do the "JB weld" (item No. S420 @ £7.00 it's on page 27 of the Spring catalogue)

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Roger Moss

Joined: 31 May 2004  
Posts: 268

Location: Leicester UK

Posted: Mon May 07, 2007 11:25 pm Post subject: A suggestion

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Many years ago I made some non detachable cylinder blocks in aluminium. On one occasion I was mortified to find a leak in the combustion area because of some porosity. I had done a lot of work on this barrel and thought that even a slim hope was worth trying.

I let a degreaser spirit of the Trike variety run through to try and remove some of the oil that would have been in there as the block had been run in an engine. I then poured in some Loctite weld Seal, but the hole was so big that it just ran through. I then mixed some Loctite Retainer with it to make a more viscous mixture and tried that. It dripped through but not too rapidly, so I warmed up the barrel and the Loctite went off. I had tried this on the logic that although the inner side of the combustion chamber would certainly be hot enough to kill the strength of the Loctite, than at least the residue had a mass that could help fill the gap. As regards the area towards the outer water side of the casting, then this should not exceed 100 deg C and so for some depth, the Loctite might retain its strength integrity. In fact, to my great joy, it worked and the engine ran without leakage. It sounds far fetched, but it worked for me!

Kind Regards Roger

Rebuilding and upgrading of Scott and Silk power and transmission units. New enhanced replica Scott engines. Special manufacture Scott technical info at our website [www.mossengineering.co.uk](http://www.mossengineering.co.uk)

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Roger Hulett

## Cylinder Head Sealing

Joined: 31 May 2004

Posts: 87

Location: South West France

Posted: Tue May 08, 2007 1:44 pm Post subject:

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Thankyou Roger, certainly worth a try. What sort of temperatures are reached in the combustion chamber ?? JB weld says it will withstand temperatures of 300 C !!!

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Roger Hulett

Joined: 31 May 2004

Posts: 87

Location: South West France

Posted: Wed May 09, 2007 11:51 am Post subject:

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There is a Company advertising on the web that claim to have a metal ceramic coating for pitted cylinder heads. POETON Co.UK have a product, APTICOTE Ceramic coating, used for racing engines etc. Does anyone have any knowledge or experience of this product ??

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BHBlacky

Joined: 08 Mar 2007

Posts: 17

Posted: Sat May 12, 2007 10:54 pm Post subject:

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I don't know as to the other products but I am very familiar with JB weld as I have used it in a number of instances going back about 35 years and keep it in my tool box. If I'm not mistaken, I have two sets at this time. Two tubes each.

The first instance and probably the one of most interest here was to the cast lower end on a Ducati 450 RT. The first uncrated in the States which I purchased before any dealers saw it as my father worked for the importer at the time. The oil would leak through certain pores and this was the first instance I used JB weld. Not a drop leaked afterward before I sold it 6 years later.

I've used it for various repairs with positive results which included sanding, filing, etc.

Using an American expression, "Your mileage may vary" I would consider it as all applications with metal that I have used it for have produced positive results.

In my younger years I apprenticed in a welding shop. What we called a "Job Shop".

For reference!

Scott

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