

Question about rod bolts

Posted by cgktexas - 05 Feb 2011 17:04

When I picked up my 944 I also got some new ARP rod bolts with it.

I wanted to check their legality for this class. When reading the rules, it looked like they might not be legal to use...saw them listed in one of the build threads so I thought I would ask before I sell them.

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Re: Question about rod bolts

Posted by 944Racer72 - 07 Feb 2011 18:57

I have used ARP rod bolts in a stock engine without doing anything to the rods.

That said, Lindsey Racing built my last engine and told me that the stock bolts were more than adequate for a N/A race application and said ARP would be a waste of money for this application. I took the advice and didn't use ARP.

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Re: Question about rod bolts

Posted by cgktexas - 07 Feb 2011 19:04

spec28 wrote:

Re-sizing the big end to use ARP's is not OEM and isn't in the rules.

out of curiosity, isn't resizing big ends (i.e. returning to spec roundness) part of standard rod reconditioning?

If stock rod bolts and new nuts are sufficient, I am good with that. Sounds like few if any are using ARP bolts, and most are running with stock bolts with good luck. Figured I would check as this would be more of a reliability issue, rather than performance and might also help with regards to spinning #2.

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Re: Question about rod bolts

Posted by 944Racer72 - 07 Feb 2011 20:03

I agree that "resizing" the big ends is a "normal" procedure when needed in a rebuild. I understand that to mean that the parting joint of the rods is machined down slightly (to bring the diameter of the bearing bore back under stock size) and then the diameter is machined back to a stock size.

There is no performance gain here and this is cheaper than replacing rods. The amount of material taken away is of no consequence to performance. This is absolutely necessary if you have an out of round rod bore.

I don't see any reason you can't use new rod bolts in a rod without resizing it as long as it meets specs for roundness when torqued up.

When I used the ARP bolts in my old engine, the rods met spec without resizing when torqued with the ARP bolts. I used a bolt stretch gauge to determine torque per the ARP charts.

If I had a cheap set of ARP bolts and was building an engine, I'd use the ARP bolts. Why not? Cheap insurance.

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Re: Question about rod bolts

Posted by joepaluch - 08 Feb 2011 07:09

The rules state you can replace parts, but they must be designed and sold as equivalent to stock parts. They must also be of the same weight.

So if the ARP bolts are sold as "a better than stock bolt because of XXX" then you are in fact using a upgraded part that is no longer a direct replacement.

Now I don't believe it will be beat by ARP rod bolts, but they do appear to be leaning the way of being sold as a performance upgrade. To be honest I have never researched these things as stock works.

So are ARP rod bolts legal? Not sure exactly, but possibly not. If some wants to demonstrate they meet the specifics in rules for aftermarket replacement parts fine. I am willing to listen.

You are allowed resize rods to bring them back to factory specs.

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Re: Question about rod bolts

Posted by cgktexas - 08 Feb 2011 10:14

Thanks Joe. I will try to do some more research on the subject. I am guessing there might be a slight weight difference, but unsure. While I am able to find new OEM nuts, I can't find anyone selling OEM bolts, only ARP and Raceware.

My original line of thinking was that if they were allowed the ARP bolts would provide same clamping with less cyclic fatigue or stretch under load. Relatively cheap reliability insurance. Torque specs are similar (55 ft/lbs). Used bolts are an unknown, but can be checked if original length is known. But if bolts are out of spec (permanent stretch set), not sure of where to source new OEM replacements.

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