

Valve Spring Question

Posted by loftygoals - 25 Feb 2009 03:56

What are the thoughts on valve springs? I experienced failures of two inner springs on my motor last season. As I result I bent two valves. Is there any reason we couldn't allow 944 Turbo valve springs? I understand that these springs are slightly stiffer than the standard 944 springs, but can be used with out modification. They are also significantly cheaper than standard 944 valve springs. The only performance advantage would be that it would allow the motor to rev higher before valve-piston interference occurred. Since we use stock software, this won't benefit anyone except with reliability. Besides cost, the 944 Turbo springs provide a little bit of extra over-rev protection. That's a very good thing in my book. Thoughts?

-bj

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Re:Valve Spring Question

Posted by loftygoals - 26 Feb 2009 04:46

mcmmotorsports wrote:

.. I would have to disagree with it. Reason being, once you start allowing mixed/matched components, you are opening up a new can of worms. There are DOZENS of parts that are cheaper than OEM replacements, many that would provide HUGE advantages in reliability or ease of acquisition with no additional performance improvement...

I completely disagree. This is allowed all the time in 944 Spec. I have replaced literally hundreds of bolts on my car with higher strength cheaper ones from the hardware store. As long as the replacement parts serve the same function as OEM and provide no performance advantage, what's the difference. We're not talking high dollar tuning or trick head jobs. This is a question of using OEM parts to provide greater reliability.

joepaluch wrote:

I have heard of a number of valve spring fail over the years. I believe that only happens on 20 year old stock valves after an untold number of hours.

I had 2 inner springs fail during the 3 hour enduro at Autobahn. It took me several more race weekends to track down what the issue was. The car would just loose power in the upper RPM range because the outer springs would keep the valves from floating in the lower RPMs.

The way I know the broken springs resulted in the tweaked valves is that after I replaced those two springs, those same valves leaked while performing a compression test.

My 83 motor had unknown milage (at least 165k) and about 12 weekends of HPDE and racing.

SvoChuck wrote:

from this statement I would say we all need new valve springs. our cars are more than 20 years old. and have "untold" hours on them.

Is there a "low cost equal" way of doing this Joe ? or is that not what you were saying.

That's actually what I'm proposing. Even if the "OEM quality" springs aren't as good as real turbo springs, they are a hell of a lot cheaper than OEM na 944 springs. Replacement is easy too. Just pull the cam tower and use compressed air to hold the valves in place while the springs are swapped.

-bj

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Re:Valve Spring Question

Posted by cbuzzetti - 26 Feb 2009 05:21

Rules creep is the #1 class killer.

This does not appear to be a real problem anyway. Very few incidences. And a new spring can break at any time as well.

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Re:Valve Spring Question

Posted by mcmmotorsports - 26 Feb 2009 05:31

cbuzzetti wrote:

Rules creep is the #1 class killer.