2011 Change Proposals - Clarifications (2 Items)

Posted by joepaluch - 27 Oct 2010 06:02

These are **PROPOSED** Changes only based on driver and director suggestions. Please comment below. These are clarifications to existing rules and do not represent a change to established rule enforcement.

2011-5.) Clarify use of Fog light openings for “ram air”

Proposal: Fog light openings may also be used to duct air into the engine intake.

Justification: Make clear the official ruling on “ram air” made at the 2010 Nationals. The effect on performance is expected to be minimal at best and the cost to use the fog lights for ram air is minimal. There are other more complex and costly methods to achieve ram air by not using the fog light holes that are already allowed by the “open intake” rules.

2011-6.) Publish rules in maximum head shave

Proposal: Head may be shaved to a minimum thickness of 0.891in(22.62mm) for 9.5:1 pistons and 0.927(23.54mm) for 10.2:1 pistons as measure on an uninstalled head in factory specified location – Factory manual page 15-16a dimension A. Installed heads measurements are as follows .934in(23.72mm) for 9.5:1 and .970in(24.64mm) to the surface of the block. Engines must comply with both minimum head thickness and compression ratio limit of 10.5:1.
Tampering with the measurement surfaces in a way that distorts the actually head thickness measurement will be subject to penalties. For reference stock head thickness is 24.0mm +/- 0.1 (.945 in +/- .004) and stock head gasket is 1.1 mm (.043in).

Justification: Publishing the limit on head thickness will make it easier to validate compliance of compression ratio when tools such as a whistler or more direct volumetric methods are not feasible. Cars will need to meet both the limit on head thickness AND the 10.5:1 limit.

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Re: 2011 Change Proposals - Clarifications (2 Items)

Posted by SvoChuck - 28 Oct 2010 09:03

2011-6

using these numbers it is still possible to make a head not legal. the valve seat can be installed in a way that it raises compression. so the part where it says

"Engines must comply with both minimum head thickness and compression ratio limit of 10.5:1." will still need to be enforced.

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Re: 2011 Change Proposals - Clarifications (2 Items)

Posted by SvoChuck - 29 Oct 2010 08:26

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I am good with both a these.

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Re: 2011 Change Proposals - Clarifications (2 Items)

Posted by JerryW - 29 Oct 2010 10:28

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I also am good with both of these.

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Re: 2011 Change Proposals - Clarifications (2 Items)

Posted by 944Racer72 - 29 Oct 2010 10:31

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Good here.

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Re: 2011 Change Proposals - Clarifications (2 Items)

Posted by cbuzzetti - 29 Oct 2010 12:15

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Looks like there may be a couple of problems with the head thickness numbers.

As Chuck knows first hand my car at Nationals checked right at 10.5:1 compression. Actually it checked over and under so it was averaged out to 1.5:1

I pulled that head after nationals to measure it to see what the thickness was so we (Jon Milledge and I) would know what the minimum thickness should be on an engine with 88 pistons to meet the 10.5:1 limit.

That number on my head is .925" and that is very close to the .927" number so I do not see

an issue there and it is probably better to be a little conservative anyways.

The real problem comes from the low compression pistons and shaving the head to .891". The stock early cam belt tensioner cannot accomodate that much removal of material. It would require the use of the late (87 on) tensioner and I do not know if those cn be bolted onto an early engine. Then there is the issue of retarding the cam too much and not getting the full HP potential of the shaved head.

It is possible that the early piston motor with a max cut head and corrected timing could be the best combination. bUt someone will have to build one to find out. And then dyno and share the info. Hmmm seems the wrong way to go.

Then we need to address the 9.7:1 piston engines. I believe these are in the 87 cars. These will have the right tensioner but will still not get to the max HP with out altering the cam timing (offset key).

To me this rule should not be put into place untill we have all the facts about what is possible and the 9.7:1 engine is addressed. And do we allow altered cam timing for the early motors to make them competitive with the 88 motors (if that is even a problem).

So a big NO from me as of now. Still need to work out the details. and figure out what the ramifications are for changing the rule ie; what can an inventive guy do to take advantage of a new rule.

I do not have a problem with the clarification of the foglight rule.

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