

## Ram Air Rule Clarification Issue

Posted by Sterling Doc - 14 Nov 2013 21:33

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Guys,

Since the rule change discussions, I've had several emails questioning the routing of ram air, and what is OK, and what is not. Specifically, if, and where holes can be cut for routing the ram air. This came up about 9 months ago, here: [www.944spec.org/944SPEC/forum/race-car-b...old-air-intake-on-87](http://www.944spec.org/944SPEC/forum/race-car-b...old-air-intake-on-87).

It has been pointed out to me that the provisional allowance made then seems in conflict with one reading of this rule:

### *17.3 Body Structure*

***The chassis structure must remain intact and stock except as noted***

*17.3.1 Headlights and headlight motors may be removed. If the headlights are removed, the stock covers must be installed in the front body work in the stock location in a secure fashion.*

*Headlight cover gaps may not be filled in or taped over. **Headlight positions may not be used for ducting of air in any way.***

"Headlight positions" can be read in multiple ways, but in the end it's just not clear as is, and needs to be fixed.

The ram air rules proposals did not address the routing of ram air or cutting holes, just where it came from, or getting rid of it entirely (which were voted down).

As we did not clarify this in the rules debate, and it is a source of confusion and contention, it need to be dealt with, even at this late date.

So moving forward, we need to decide if cutting holes in the headlight buckets (or elsewhere) to allow for straighter/cleaner ducting of ram air should be allowed. We should also address cutting holes for ducting oil coolers, etc for clarity.

Ram air has become such a headache, that it may need to be done away with if we can't sort this out.

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## Re: Ram Air Rule Clarification Issue

Posted by RacerX - 15 Nov 2013 10:02

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On the passenger side up front is the windshield washer reservoir.

Once you remove the washer reservoir and the all the head light assembly there is tons of room in there. A nice big space, as the next pic shows.

On the drivers side up front is a corner bracket. In this next pic you can see the AC dryer and under the bracket are the horns. I believe this bracket is there to protect parts of the AC system in case of an accident.

This next pic is my car with the bracket cut out and the "RAM AIR" hose from the fog light to the stock air box.

There is no room to run the hose up to the air box with this bracket in the way. Since there is no bracket like this on the passenger side and is not being used, I cut it out entirely, as per rule 17.3.10 Unused wiring, brackets, nuts, bolts and studs may be removed.

I don't know why anyone would cut the headlight buckets out? But on the other hand as per rule 17.3.10 , the headlight buckets are unused when it becomes a race car.

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## Re: Ram Air Rule Clarification Issue

Posted by Sterling Doc - 15 Nov 2013 11:09

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**Bottoz wrote:**

**Sterling Doc wrote:**

I think it's pretty clear that ram air increases HP...

So, what if someone dynos right at the limit... or 2 hp below... or 5 hp below. If they run Ram Air, can they be protested? I'm sure you have the data Eric, but what if at Nationals, those that were close to the limit AND had HP increasing Ram Air were protested and disqualified?

CJ, in terms of real HP on the track, I doubt any of the cars cracked 125 HP at Nationals at 5,000 feet, ram air or no. When we race at Road America, and it's 30 degrees out, we're probably making 150HP.

The dyno rule deals with dyno corrected HP only, not actual HP. Unless we tow that mobile dyno over 80MPH with a 944 strapped to it, there is no way to measure the ram air effect in terms of the rule to entertain DQ'ing somebody. These issues are also part of the reason that Traqmate data is hard to use for absolute numbers.

I understand your point about ram air adding some power above the cap, and I'm not entirely unsympathetic to that point. When we put ending ram air to a vote, it went down pretty hard. So it seems that the majority want it, but we have to make sure that we at least provide equal opportunity to that benefit, and that is what this thread is about.

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## Re: Ram Air Rule Clarification Issue

Posted by Sterling Doc - 15 Nov 2013 11:15

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Ken, good post on illustrating this.

Considering the headlight bucket and "unused bracket" is not going to pass the common sense test. Even the triangular part is a grey area, though a reasonable person could make the case for it.

We'll make this more clear moving forward.

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## Re: Ram Air Rule Clarification Issue

Posted by Bottoz - 15 Nov 2013 11:33

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I know there is no way to measure it. If you can't measure it, then how do we know how much it's adding? We have a legal limit of 138. Ram Air allows you to legally break the rules, and 'cheat'.

Let's say two guys have a properly set up car/engine at the 138 limit. One guy chooses Ram Air, the other guy does not. Guess who has more HP? And of course, the usual's will say "it's all about the driver", ok fine. Get rid of your Ram Air.

10/10 of those who vote for Ram Air have bought/invested/made/**innovated** their Ram Air.

Ram Air was made to add hp. We have a HP cap. If you're at the cap, you don't need Ram Air. Take it off.

It looks like we're in a situation where everyone is doing it, so I guess it's legal to break the HP cap because everyone else is. Rules are Rules. If there is a 138 HP cap, yet we allow Ram Air that adds HP... hmmm... what else can be broken?

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## Re: Ram Air Rule Clarification Issue

Posted by RacerX - 15 Nov 2013 12:09

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**Bottoz wrote:**

Let's say two guys have a properly set up car/engine at the 138 limit. One guys chooses Ram Air, the other guy does not. Guess who has more HP? And of course, the usual's will say "it's all about the driver", ok fine. Get rid if your Ram Air.

10/10 of those who vote for Ram Air have bought/invested/made/**innovated** their Ram Air.

Ram Air was made to add hp. We have a HP cap. If you're at the cap, you don't need Ram Air. Take it off.

I don't care either way. There's not much invested in the set-up for ram air. I just wish we'd make up our minds about it and then let it alone.

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