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## RA1\'s vs R888

Posted by comatb - 2008/08/04 08:15

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I had a set of shaved R888's on the car for twelve heat cycles over two weekends. One tire is toast, another is almost the same. The other two are still usable, but for how long? I must add that I did not rotate the tires, partly to see how long they would last. I ran them at 36 to 38 lbs hot. What are your experiences with these. The RA1's lasted much longer.

A key ingredient to running 944 Spec when I started was tire cost. This savings appears to be much smaller with the R888's costing \$158 plus \$15-\$20 for shaving. Hancooks are \$187 and Hoosiers are \$210. Comments?

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## Re:RA1\'s vs R888

Posted by Weston - 2008/08/04 10:49

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Yeah, I'm seeing significantly more wear on the R888's than I did on the RA-1's. This season's R888's \*might\* make it to the end of this season, where my RA-1's from last season still have several events left on them.

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## Re:RA1\'s vs R888

Posted by Sterling Doc - 2008/08/04 12:09

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Seems somewhat track dependant. At Gratten with it's cambered turns and wheelspin -inducing nature (need tha LSD), we went through several R-888's. At Other tracks, we've run 3 hour Enduro's plus 2 sprint races in a weekend with a lot of tread life remaining. I would agree that they do not hold up to abuse/wear as well as the RA -1's. What's more there seems to be little rubber under the treaded part, so they never fully get into that "near slick" phase before they cord, often in the center (and Toyo rec. more pressure :blink:).

Finally, I can't seem to go quite as fast. I used to run the same laptimes as the front -running SM's, but this year I'm consistantly about 2 seconds slower than my old times, and the SM's current times (they're still on the RA-1). We're starting to work on camber & pressure, but little so far (need a specific T&T day).

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## Re:RA1\'s vs R888

Posted by SvoChuck - 2008/08/04 16:53

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We will need to talk to NASA and TOYO about this . The R888 is nice in that it keeps the field more even on wear (never having a fastest period of life) but we in the RM region corded numerous R888's last event. I have RA1's that are over 18 moths old, but I need 4 new R888's after 3 1/2 events ???

TOYO does want to hear what we are saying .

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## Re:RA1\'s vs R888

Posted by comatb - 2008/08/04 21:44

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Eric I also had the wear in the middle even though the pyrometer had a temperature dip in the middle. We increased pressure in half pound increments to even the temps. The speed is difficult to assess from basically one weekend, but it was pretty good in the early laps, then faded quite a bit. This was repeated in every session. We used RA1's in the hour and a half enduro and saw no speed loss during the race.

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## Re:RA1\'s vs R888

Posted by Litespeeds - 2008/08/05 22:29

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I have talked to Bryan Shackelford and he said it is recommended that these tires be heat cycled and then stored off the car for 24 hours before you race them. This could prolong the life of the tires dramatically.

As to shaving, that could help because you will be getting rid of weight from the tire as well as a little new tire squirm.

I haven't tried the R888's yet but do have a set that I will get mounted this season so I can heat cycle them and use them next year.

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### Re:RA1\'s vs R888

Posted by joepaluch - 2008/08/06 10:00

Guys,  
Lets make sure we record all the heat cycles these tires go through. I have recorded all the heat cycles I have ever run on the 10 sets of RA-1 I have used over the past 5-6 years.

I will start using my R888 this fall and will record all these.

My greatest concern is that we do not get the life from these tires that we need to ensure a cost effective playing field.

If the R888 tire life is unacceptable we will need data to back that up.

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### Re:RA1\'s vs R888

Posted by norman#99 - 2008/08/12 05:34

I ordered 888's the last two times I have needed tires and was not able to get them because they were back ordered so I haven't used them to comment.

At Miller I only used one set of tires (ra1's) I think I drove about 350 miles in three days. The rear tires wore out faster than the fronts because of the rear alignment issue I developed on Friday, so I rotated the passenger side tires on Sunday and that was it for the whole weekend. I don't know of too many tires that you can run on that hard for 3 days with a bad alignment and still be competetive. I hope they continue to make the ra1's and it will stay the spec tire, if it ain't broke .....!

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### Re:RA1\'s vs R888

Posted by Karl @ ART - 2008/08/13 19:19

Does anyone have any interest in running the 205s?

They should wear better than the 225 on 7 inch rims.

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### Re:RA1\'s vs R888

Posted by cullenwinter - 2008/08/13 20:24

Karl @ ART wrote:  
Does anyone have any interest in running the 205s?

They should wear better than the 225 on 7 inch rims.

225/50 is the spec tire size. It's in the rules....

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## Re:RA1\'s vs R888

Posted by Karl @ ART - 2008/08/13 21:17

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How did the 225 become the spec tire?

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## Re:RA1\'s vs R888

Posted by SvoChuck - 2008/08/13 23:30

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I bet Joe knows !

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## Re:RA1\'s vs R888

Posted by joepaluch - 2008/08/14 05:25

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7" wheels are stock size, cheap and common for these cars. As such 15x7 is the stock wheel size.

225 were selected as it is a good size for the car and the 7" wheel. Original stock size on the 944 was 215/60 R15. Turbo cars used 205/55 and 225/50 on 16" wheels. The 225/50 give us a good rubber patch on the stock wheel and a 1" shorter overall diameter for slightly improved gearing.

205/50's could be run, but at 2600lbs we are 400lbs heavier than a Miata which also runs that size. With a 7" wheel we can run the 225 with ease so why not. I can't see a 205 wearing and better than a 225 for our cars.

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## Re:RA1\'s vs R888

Posted by Karl @ ART - 2008/08/16 07:47

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Joe,

Thanks again for the information. You have been wonderful about sharing your knowledge, and I'm sure I'm not the only one who has benefitted. I'm still learning the 944 and have not driven one since I sold mine in 1991.

I can only share my eight years of experience with the SMs which may or may NOT cross over to the 944. We ran 205/60 and 195/60 R14s on 5.5 and 6 inch stock rims in addition to the 205/50 R15s on the aftermarket 7" rims. The 205s on R15s wore/wear better by far.

Small correction. The 1600 SM is the lightest and comes in at 2300 or 2325 with driver. The 99 SM comes in at 2450 or 2475 with driver. Both run the 205/50 R15. All the fastest SMs still wear to the cord at either the inner or outer edge. I believe a better wheel in SM would be a 15x8 (assuming they stay with the Toyo RA1)but you just can't find those in the price range of the 15x7.

Weight does not always mean more wear or more heat in the tire. I supported both a 99 and 1600 at a NASA race earlier this year. They finished first and second in all three races (swapping position and finishing spots) and the 99's tire temps were always lower than the 1600s.

Give the 205/50 a try. You might find you like the acceleration (lighter tire with smaller diameter) and wear better. I have tons sitting around, so I'll use them to sort out our 944. If they don't work well I'll be the first to let everyone know. :-)

205 divided by 25.4 = 8.07 inches

225 divided by 25.4 = 8.86 inches

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## Re:RA1\'s vs R888

Posted by Litespeeds - 2008/08/16 17:39

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I have a set of 205/50/15 RA1s mounted on 15x7 cookies and the tire does fit better on the rim. I tracked this setup on my 1988 944 before and I liked them a lot. I could tell there was less unsprung weight as acceleration seemed a little better but I did get caught up in between gears in certain turns that I normally would have just stayed in 3rd.

Everything has its advantages and disadvantages but since the rules are set to run 225/50/15, I am sure they are not going to change that.

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## Re:RA1's vs R888

Posted by Karl @ ART - 2008/08/25 13:06

If the long term cost is lower without a big performance sacrifice almost everyone is onboard. If you get lower costs and performance gains, everyone is onboard.

The question is...Which tire gives the best compromise? I have no idea with the 944, but I did want to plant the seed.

According to my tire guy, the R888 comes new at 6/32nds at the following prices:

225/50 R15 = \$148 (22 pounds)

225/45 R15 = \$145 (20 pounds)

205/50 R15 = \$131 (20 pounds)

Add \$15 per tire for shaving.

Though the compound is supposed to be the same as the RA1, the R888 seems to wear faster.

Joe,

You've done such a good job with this so far. The more 944 Spec grows the more tires will get shaved. You might consider a page from pro racing for any "Big" event. If you decide to stay with the R888 or select any tire that can be raced effectively at full tread depth, you can mandate that the tires start the weekend (first Q session) at full tread depth. Great way to even the field and keep the costs down.

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## Re:RA1's vs R888

Posted by joepaluch - 2008/08/25 13:17

It was common to shave the RA-1. The reason for this was to reduce the break in time from 12 heat cycles full tread 8/32 to about 6 if shaved to 4/32. There is no evidence to support shaving on the tires in our class. In fact those that have shaved the tires have been quite UNHAPPY with results. The tires have in fact been slower. As such run them full tread and be done with it. Our tire guy is recommending to NOT shave them. While it was common on the RA-1 it just does not seem to work for the R888 at the club racing level.

As for putting limits on tires at each event this does not make much sense since most tires will last multiple events and knowing the history of a set of tires before they come to an event is not feasible. Also I have yet to see anyone trying to use new tires to gain an advantage.

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## Re:RA1's vs R888

Posted by pixrken - 2008/08/26 18:54

Here's more data points.

Rick brought his R888's over to AIM tires at Thunderhill to ask them about the pattern on the tire about the second quarter when counting from the outside. It's the dark area, left hand side of the center of the tire in the picture.

<http://944spec.org/gallery/r888sm.jpg>

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The AIM guys said the tires were under inflated. It's dark because it doesn't touch the dusty ground. Rick was inflating the R888's as he would a RA-1 about 32psi cold and aim for about 38 hot. The spec e30 guys are running R888's also and going thru the same learning process. The reason I mention spec 30 is because their fast guys and our fast guys run comparable times. The AIM guy said the fastest e30 time on R888's was with 40psi COLD! Rick tried it at 40 cold and said it has probably less grip than a RA-1 for one or two laps but after that they perform just as well as a good condition shaved RA-1. For Rick to say they perform as well as a good condition shaved RA-1 is a big deal because Rick never had a good thing to say about the R888's. Aubie was testing with a white paint marker on the side of his R888's and even at 38 cold it was rubbing paint off the raised triangle indicator so perhaps 40 cold is the right thing for these tires. Just a FYI of our experience.

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## Re:RA1's vs R888

Posted by SvoChuck - 2008/08/26 19:17

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40 cold ! ouch . but if Rick says it's good I will try it !

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## Re:RA1's vs R888

Posted by joepaluch - 2008/08/27 05:28

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40 psi cold is crazy.. However if after 2 laps they "come in" then it may not be so bad. Was Rick able to run back to back with the RA-1's on the new pavement.

I wonder if the new pavement might have impacted how the car felt at t-hill. I know that Rick knows the track very well, but the pavement may have a big role to play.

Still a few more weeks till I try our my R888.

BTW... 40 psi cold = how much hot?

With RA-1 I would start 32 cold to achive 38 or 39 psi hot.

Was Rick at 48 psi hot?

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## Re:RA1's vs R888

Posted by pixrken - 2008/08/27 08:34

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Joe,

When we first heard 40psi cold we had the same reaction but none of the pressures we know from the RA-1's works with the R888's.

Rick was the first one in our group to try the R888's back in 4/20/08 in a PCA TT at Thunderhill. Please keep in mind Rick is very familiar with this track, running on it for years, was on our 25 hours of Thunderhill team last year and we had our series race on it 3/9/08. Nothing he tried (from 30-40 hot) on the R888's worked. He was almost two seconds slower with the R888's, swapped them out and instantly got back his time.

That's the reason why he took a old set of RA-1's to Millers instead of a new set of R888's and he gave the Toyo rep. an earful at Millers.

Rick ask me if he can start stock piling RA-1's back in June and I told him to please refrain from doing that.

Now to your question as did he try running back to back with the RA-1's last weekend on the newly paved surface and the answer is no. He didn't have any good RA-1's left.

I felt everyone was slower, not because of the new surface but because there were no fixed reference brake markers yet

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(they were all taken down for the repaved) and two major turns (Turns 6 & 8) where you normally put your left wheel on the apex berm now has high curbs which can upset your car or bend a wheel.

Perhaps Rick can comment the next time he's on this forum. ;)

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## Re:RA1\'s vs R888

Posted by joepaluch - 2008/08/27 09:11

Ken,  
Thanks for the update.

It has been my personal feeling that the R888 is not a horrible tire by any means. However we in 944 spec just have not been able to find the sweet spot for these.

Back in late 2002 we transitioned from the Kumho Victoracer as the defacto spec tire to the RA-1. Many growsns were heard, but in a couple months we were all happy with RA-1. This transition is clearly more difficult, but when we went to the RA-1 we had lots of experience from other series on the RA-1. As such pressure were know up front. We used to run 32-33 psi hot on Victoracers and the 38 hot of RA-1's seemed high. However they worked well.

Sadly with R888 that data is sorely lacking. There is no clear body of knowledge as to what pressures to run and how we expect the tire to react to heat cycles over its life. As such it seems clear that some may not have a good initial experience. I do hope that in time we can learn what makes these tires work.

Rick's data is very helpful and a step in that direction. Starting in a few weeks I will have 3 more events in 2008 to test out the R888. I still have one good set of RA-1's so I will do back to back testing and share what I learn.

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## Re:RA1\'s vs R888

Posted by rlofgren - 2008/08/27 16:21

i was getting weird wear on the 888s so i took a tire down to AIM, our local tire guys. they said a spec e30 had a similar problem and it was all about rolling over the outside of the tire. then the e30 guy apparently used 40 cold, then 41 cold and did 2:10.x. we are usually pretty close to those guys on time, so they might be right. the tire guy said the sidewalls are stiffer, but the tread construction is the same as the ra-1, hence the need to do more pressure to match the sidewalls to the tread?!? who knows.

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## Re:RA1\'s vs R888

Posted by whaxed - 2008/08/27 17:30

More General Info:

I was running 38 cold and ending up at 44 hot. I was still getting some sidewall rollover, which I think is a good indicator of how much pressure to run. If you get rollover on the wear markers then you might benefit from more air. When I ran the old lower RA-1 pressures I rubbed the wear markers off totally.

My car is a little underprepped, and a bit softer on bars so that may also affect what psi to run. A stiffer setup might be able to run a few less psi and not get the comparative rollover.

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## Re:RA1\'s vs R888

Posted by joepaluch - 2008/08/28 06:21

rlofgren wrote:

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problem and it was all about rolling over the outside of the tire. then the e30 guy apparently used 40 cold, then 41 cold and did 2:10.x. we are usually pretty close to those guys on time, so they might be right. the tire guy said the sidewalls are stiffer, but the tread construction is the same as the ra-1, hence the need to do more pressure to match the sidewalls to the tread?!? who knows.

Rick,

This is usefull information thanks. At Miller I was looking at the wear on Jon Arino's and Jim Foxx's R888. Jon was running RA-1 pressures and ran over the edge of the triangle and corded the tire. There was still grip and rubber left on the tire. Jim Foxx was running more pressure, but no where near as much. We took Jon's tire to Bryan Shackelford and he advised more pressure. It was a guess as to how much. The idea after that was 40 hot or so. The 40-41 cold is crazy high and I still wonder if is too high. Maybe 42-44 hot is what we need. Did you check your hot pressures?

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## Re:RA1\'s vs R888

Posted by joepaluch - 2008/08/28 06:28

whaxed wrote:

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My car is a little underprepped, and a bit softer on bars so that may also affect what psi to run. A stiffer setup might be able to run a few less psi and not get the comparative rollover.

What suspension and camber settings? I know that most underprepped cars roll over the sidewall alot more well prepped ones. My thinking is that for a fully prepared car running 3+ deg of negative camber 38 psi hot maybe better than even 40. I still think 40 cold is too much. What I do think is that this maybe a break through in the thinking with this tire so we can narrow in on the range. We may need to try 37 to 41 cold and just see how it works out. I really don't think any 944 guys have started that high with these tires before. If you figure we gain 6 psi cold to hot then a 37 to 41 cold range could be 43 to 47 hot. With the RA-1 anything over 40 hot was sliding around time. So I doubt many have tried 43 or even 42 hot.

My gut tells me to try 38 cold with my R888 this September. I will get some pictures of wear relative to the triangles on the side. I will also heat cycle these Saturday morning for 1 session and let them sit until Sunday. On Sunday I will run them again and hopefully get accurate hot pressures and temps.

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## Re:RA1\'s vs R888

Posted by whaxed - 2008/08/28 08:49

front: 400lbs, turbo bars, no strut bar, 2.5 camber, bilsteins.

rear: 31 hollow, 19mm rear bar, smidge less than 2.0 camber.

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## Re:RA1\'s vs R888

Posted by Sterling Doc - 2008/08/28 09:04

Not a lot of camber there, that may contribute. Is the car understeering on the 400lb springs and scrubbing the front tires? It will be very useful to get tire temps across the tire while hot. This would go a long way to settle how we are using this tire. I plan to do that in a couple of weekends to prepare for Nationals.

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## Re:RA1\'s vs R888

Posted by whaxed - 2008/08/28 09:37

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Yeah, that's intentional. After all the Miller reports when I was doing setup I was hearing more pressures and less camber, so that's what I decided to try, knowing that everyone's pretty set on the RA-1 config., and that wasn't working on the R888.

I'm not getting push but this was only my third event and I'm not wringing the car all the way out, so that might be driving style as well as setup.

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## Re:RA1\'s vs R888

Posted by joepaluch - 2008/08/28 12:12

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The word from Toyo was the R888 need less camber. Well running over the sidewall is a sign of too little camber. I think for our suspensions we keep the camber the same bump up the pressure.

That is my take.

I will be running 3.5 as always and 38 psi cold. I will report back out they turn out.

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## Re:RA1\'s vs R888

Posted by Gary\_44 - 2008/08/28 22:07

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pixrken wrote:

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The spec e30 guys are running R888's also and going thru the same learning process.

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The AIM guy said the fastest e30 time on R888's was with 40psi COLD!

Rick tried it at 40 cold and said it has probably less grip than a RA-1 for one or two laps but after that they perform just as well as a good condition shaved RA-1.

For Rick to say they perform as well as a good condition shaved RA-1 is a big deal because Rick never had a good thing to say about the R888's.

Aubie was testing with a white paint marker on the side of his R888's and even at 38 cold it was rubbing paint off the raised triangle indicator so perhaps 40 cold is the right thing for these tires.

Just a FYI of our experience.

Anyone else seen this infrared photo? Seems kind of similar to the dark wear pattern on Rick's tire (if you flip it to match the tread's direction). The yellow area shows the highest contact of the tire's smooth surface, the orange/red along the grooves of that same area are the highest contact anywhere on the tire, but the surface on the other half of the tire is mostly green, less contact (same place as the dark area on Rick's)

I'd think that Toyo surely experimented with pressures alot to create the best infrared pic they could, and they still have a similar wear pattern.

Taken from the Contact Distribution Chart on Toyo's own pdf

<http://www.toyor888.net/racing/toyo/images/R888ProductDataPage.pdf>

[http://944spec.org/944SPEC/images/fbfiles/images/R888\\_tread\\_wear\\_pattern.jpg](http://944spec.org/944SPEC/images/fbfiles/images/R888_tread_wear_pattern.jpg)

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## Re:RA1\'s vs R888

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Posted by wild4a914 - 2008/08/31 21:08

Just my .02 . I had the same problem as Jon Arriano, I corded the pass front after two days at PIR, my setup then was stock setup with Koni's, cut 250# springs, 2.8 camber, running around 38 psi. I have since added camber plates, 3.5 camber, and 325# springs. I have been running a set of 235/50's that have held up well thru a 20 run auto x day and a test and tune at Firebird West running around 38-39 hot and are wearing well. I also ran a set of 225/50's for the Firebird East event which had two races the same day and don't show any unexpected wear. I know we are all trying to develop the R888's but are we going to have a cutoff date for running the old RA-1's ?

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## Re:RA1's vs R888

Posted by joepaluch - 2008/09/02 06:53

wild4a914 wrote:

...I know we are all trying to develop the R888's but are we going to have a cutoff date for running the old RA-1's ?

Yes we will have a cut off date for the RA-1. Not sure when, but one aspect we need to allow for the series to remain low cost is to ensure drivers don't need to throw away good RA-1's. I don't want guys buying new RA-1's, but we should be able to use up our existing supply of them.

2008 is a Transition Year. 2009 may be different. In Arizona at least we will take the rest of 2008 allowing both tires. We need more time on R888, before we cut off all RA-1s. In 2009 I expect Arizona to phase out all RA-1 use some time before summer at least for all regular runners.

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## Re:RA1's vs R888

Posted by bcc1323 - 2008/09/02 18:41

Why should there be a cut off date? They both are TOYO, and there's not that much difference between them. Brian seem to say they were still going to make the RA1's. One or the other might be better for different drivers. Let them make the choice.

Larry

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## Re:RA1's vs R888

Posted by joepaluch - 2008/09/03 08:31

Larry,  
Toyo is phasing out the RA-1. Some sizes are already no longer available. This will be the case with our size as well. This is the primary reason we are switching tires in the first place. If that were not the case we would just stick with the RA-1.

The other issue is that we are in a spec class and we need to spec the tire. Competitiveness dictates that all racers run the same tires. This means the SAME tire size, brand, and version.

Now I could simply state that you can't run RA-1's at all. This would be in keeping with the concept of a level playing field for competitiveness and is actually in the 2008 rules for after June 08. However it would be costly as there are guys who throughout this year have supplies of RA-1's that need to be used up. I prefer to see guys use their existing RA-1 and just buy R888 when they are used up than to need to buy 2 sets of R888. We are a budget class a and need to balance competitiveness vs cost. As such both tires are being allowed in Arizona in an effort to allow drivers to use up their personally supply of RA-1s. When I no longer see stacks of spare RA-1's at the track we can set a cut off for using RA-1's. Clearly I will need to look out for the less frequent runners who may be on 2 year old RA-1's since they miss most of last year.

Now there is also a learning curve associated with R888s. It has become pretty clear that all that we know of RA-1 does not seem to apply to the R888. This does not mean the R888 is inferior. It just means it is different and will take

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time to learn. As such while I am not happy to hear about less than favorable experiences with R888 I believe that we can come to grips with the tire and learn to love it as we do the RA-1.

To make this process easier I will be sharing all the data I have on using the R888 for our cars and would hope the other drivers do the same. In this case Rick's experience is invaluable. Thank you Rick.

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