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FROM THE 2007 EDITION OF THE...

Yes vote for N₂

I have been personally involved with nitrogen-in-tires for more than 20 years and I think *Tire Business* should be ashamed of itself for printing a terrible news story like the one in the Dec. 3 issue about *Consumer Reports (CR)* magazine finding that nitrogen inflation in tires is not worth the extra cost.

And *CR* should be ashamed of itself for the so-called research it allegedly conducted on the subject.

Did they actually talk to anyone? Or just stacked some tires in a barn for a year and checked them for pressure loss afterwards? I wonder if there were any cows in the barn other than the *CR* "scientist?"

CR took one year to do exactly what Bridgestone Corp. did in the early 1990s—BN (before nitrogen).

We could have supplied *CR* or *TB* with a copy of that Bridgestone test if we had been asked. So shame on *CR* and on *Tire Business* for not researching properly and printing half-truths and nonsensical garbage!

If *CR* had done the research as research should be done, it would have been referred to a report published Aug. 30, 1993, by *Rubber & Plastics News* (a sister publication of *Tire Business*), on tests done on nitrogen- vs. air-filled tires. Tests were conducted on tear strength and the effects of oxidation on tire durability. These tests, as reported, showed the significant advantage of nitrogen inflation over air.

Compare this test in 1993 with *CR*'s so-called 2007 experiment. The magazine report shows a lack of knowledge on the subject and a lack of understanding about what they were doing. For example, do they know about the "permeation speed of gases through a permeable barrier," such as a tire? Every gas company has a table showing the permeation speed of gases, including the air liquid version. *CR* could have gone to a gas company, which would have saved the magazine a year and the embarrassment of coming out with "news" that many people knew 10-plus years ago.

The fastest migrating gas is water vapor and the slowest is nitrogen—a scientific fact. Therefore, if you run an air-filled tire on the

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road in the day and let it cool in the night, you will be creating water vapor, the fastest migrating gas, every day. So pressure loss will be much greater than with a tire standing outside, as *CR* said it found out in its 2007 test.

Robert Daly, marketing and sales manager for Parker Hannifin Corp., which markets nitrogen inflation systems, is exactly right in telling *Tire Business* (in the Dec. 3 story) that the tires must be run in a real-world situation. The tires in the *CR* test were not run at all—they were stacked in a barn.

Jay Lighter, chairman of NitroFill Inc. in Pompano Beach, Fla., was quoted in the *Tire Business* story that 85 percent of the population does not check their tire pressure every 30 days—and he's right. Nitrogen inflation is like an insurance policy for this 85 percent.

No one selling nitrogen should tell a customer: "Don't check your tire pressure regularly." Nitrogen is not a substitute for good tire maintenance. It just gives peace of mind between checks, causes tires to run cooler because it is a pure gas that does not hold heat as air does with its water vapor, and because less pressure loss means lower fuel consumption and also less heat generation from better-inflated tires. All that was proved long ago.

Nitrogen is much better than what air can deliver, and at a few dollars (about 5 percent) of the cost of the tire, it's worth using. I have been inflating tires with nitrogen since 1995 and have established that a 20-percent increase in tire life is not uncommon, so nitrogen is therefore a definite bargain.

An associate company of ours, Nitalife in South Africa, has been offering nitrogen to the public since 1996. The firm has just installed—not just sold—its 404th nitrogen plant.

The airline industry uses nitrogen in air-

craft tires because N₂ cannot freeze at high altitudes, whereas water vapor created with air in a tire on takeoff and climbing to cold high altitudes can and does freeze. This happened to a US Air plane in 1968 when it took off in Carolina with air-filled tires which froze at altitude; the plane skidded off the runway when landing on frozen tires in Boston.

Since then the Federal Aviation Administration has ordered that aircraft tires be filled with at least 95-percent pure nitrogen.

We would have at least expected that, in its reporting, *Tire Business* be better than *CR*, which is an anti-industry organization.

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Editor's note: According to its Web site, Taray International Corp. is a global supplier of equipment and supplies—including nitrogen inflation systems—to the tire and retreading industries.



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