

Nitrogen tires hit the road

Motorists find subtle results

Forum and wire reports

TOPSHAM, Maine – Many motorists seeking to improve their mileage as gas prices soar this summer are examining everything – right down to the air in their tires. And for a growing number, plain old air isn't good enough.

George Bourque of Fairfield is one of those who are driving around on tires filled with pure nitrogen, the same stuff NASCAR racers use.

Bourque, an engineer, said he has seen a 1 to 1.5 mile-per-gallon increase since he began filling his tires with nitrogen, which is touted as maintaining tire pressure longer and resisting heat buildup on hot summer days.

"I analyze everything," he said.

Fargo-based Branick Industries Inc. produces nitrogen tire inflation systems and has sold 475 of the units to Costco Wholesale Corp., said Brian Brasch, Branick president.

Branick started making the

inflation systems in 2002.

Nitrogen has been used for years in the tires of race cars, large commercial trucks, aircraft and even the space shuttle.

But it is finding its way into the mainstream at a growing number of tire dealers – including Costco Wholesale Corp.

Nationwide, less than 10 percent of tire dealers offer nitrogen, but the number is growing, said Bob Ulrich, editor of Modern Tire Dealer magazine in Akron, Ohio. Most dealers charge \$2 to \$5 per tire for the nitrogen fill-up, he said. The dealers generally offer free lifetime refills.

Bourque got his tires – filled with nitrogen – in Waterville, Maine at Tire Warehouse, which has 50 tire dealerships across New England. The nitrogen was part of an installation package when Bourque bought a set of tires.

Skeptics will question how much can be gained by filling tires with pure nitrogen when the air we breathe is 78 percent nitrogen.

The differences are subtle, but important, said Steve

McGrath, Tire Warehouse's vice president of marketing in Keene, N.H.

Nitrogen molecules are bigger than oxygen molecules, so nitrogen seeps out more slowly from tires than air; nitrogen resists heat buildup better than air, which contains moisture; and nitrogen reduces oxidation, which can damage the tire from the inside out, proponents say. Nitrogen is an inert gas, so there are no safety or environmental issues.

Those advantages are important in vehicles equipped with tire pressure monitoring systems, which are sensitive to changes in tire pressure, McGrath said.

With or without nitrogen, proper inflation is the key to improving gas mileage. Motorists can improve gas mileage by 3.3 percent simply by keeping their tires properly inflated, according to the U.S. Department of Energy.

For tire dealers, the nitrogen generator and associated equipment typically runs between \$3,000 and \$12,000, Ulrich said.