

[This is an OCR of an article in Argosy magazine for August, 1977. Errors were corrected as found, other errors might exist. The photographs, and captions, were deleted to save disk space.]

## **Over 100 Miles On a Gallon of Gas**

A 24 year old inventor in El Paso Texas has the government  
and the automobile people taking a close look  
at his astounding experiment that could revolutionize the industry

**By Gregory Jones**

Two hundred miles on less than two gallons of gas?

That's the spectacular fuel economy Tom ogle got when he test drove a beat up, 4,600 pound, 351 cubic inch, 1970 Ford Galaxie on April 30, 1977, from El Paso, Texas, to Deming, New Mexico, and back.

It's that type of performance that Ogle believes will liberate the nation's army of automobiles and commercial carriers from the bondage of high costs for fuel. According to Ogle, his system will reduce to near zero the hydrocarbon and photochemical pollutants emitted by the gasoline internal combustion engine and eliminate the traditional carburetor and fuel pump-resulting in fewer tune-ups and maintenance.

The 24-year-old inventor, who cared more as a youngster for tinkering around in automobile engines than playing sports, will have his system patented, perfected and into mass production within a year. In the meantime, to convince the doubters, he plans to equip three late model cars with his new fuel system (eight, six and four cylinder) and test prove them in the laboratory and on the road. He predicts the powerful eight cylinder engine will get 90 to 120 miles per gallon; the six cylinder medium-sized engine will average 140 to 200 miles per gallon; and the economy four-cylinder engine will steal the show at 260 to 360 miles to the gallon.

Unbelievable?

Well, one stumbling block that leaves the critics searching for an answer is the monitored test run. It has been established no hoax was perpetrated, unless it was of such an elaborate nature that it escaped the scrutiny of numerous mechanics and engineers.

Ogle ran his test drive in West Texas and south central New Mexico, an arid environment that combines Yucca of the Chihuahuan Desert, Cotton Wood of the Rio Grande Valley, and the many types of pines that speckle the upper reaches of the Rocky Mountain foothills.

Before he could begin, the Ford was closely scrutinized for hidden fuel tanks. None were found. The special fuel tank he designed for his fuel system was emptied of its contents, and a carefully measured two gallons of gas was poured back in. The fuel tank was checked for hidden compartments. None were found. It took ten to 15 minutes to get the car primed to start, proving all the more that there was no hidden fuel and that the system had been emptied. Ogle then drove the low-hanging car out of Peck's Automotive Service and Body Shop, located in northeast El Paso, and followed a police escort to the city limits. A caravan of curiosity seekers followed the vehicle to Interstate 10, which goes north out of El Paso to Las Cruces, New Mexico. There the Ford test car turned west, and followed Interstate 10 to Deming.

The result?

Ogle summed it up. "It was like one guy commented... that we actually had really done something when we got to Las Cruces (45 miles from El Paso). When we hit Las Cruces, we were already going better than a Datsun," Ogle quipped, then nodded with his head toward the big Ford Galaxie as if to say: "And in a car like that!"

Ogle maintained 55 to 60 mile per hour speeds, and had to climb one steep incline just west of Las Cruces in order to get up on the mesa which remains relatively flat for the next 60 miles to Deming.

The "Oglemobile," as the test car has come to be known, only stopped once in Deming, where Ogle, his assistant James Franklin, and a newspaper reporter had a cup of coffee "while some of the other cars got gas."

The test run was near completion when he was forced onto a shoulder along the highway and a rock flew up and punctured a "filter" in the fuel line, causing the vaporized power to escape to the atmosphere. The engine stalled out, and the car had to be towed back to Peck's garage. "It was still a success. We proved we could do it," Ogle said later.

How *exactly* did he do it?

Ogle is understandably cautious about explaining in too much detail what it is that makes his system work. There is still the all-important matter of getting a patent for the invention, and, until then, we'll have to make do with a nuts and bolts description.

First off, the vaporized fuel system is nothing new. It's been kicked around for 50 years or more. Ogle said he did something that other inventors and experimenters didn't try, however, and that was to eliminate the standard carburetor. During the explanations he gave to professional mechanical engineers, Ogle would proudly come forward holding the defunct carburetor, smiling as broadly as a successful big game hunter. "Here's the carburetor," he'd say, while the engineers pondered the "black box" contraption that stood proudly in the carburetor's place.

It's through this black box that the fumes are "filtered" a final time before being injected straight into the cylinders. Air is mixed with the fumes both at the fuel tank and the engine. A mechanical engineering professor from the University Of Texas at El Paso suggested to Ogle that he call his filters something else. "You're not actually filtering anything," professor John Whitacre said. "Those 'filters' are actually more like absorptive surfaces or absorptive panels."

Gerry Hawkins, a specialist in high performance engines, shook his head after viewing the Oglemobile. "It looks good," he said. "I don't know why somebody didn't try this before. He's eliminated the carburetor and achieved what the gasoline internal combustion engine was supposed to do all along--to operate off fumes. The idea is feasible, and it appears he's found a way to make it work." Hawkins holds a *Ph.D.* in mechanical engineering from Texas A&M University and currently is on the U.T. El Paso faculty.

"To me it looks like the only thing that leaves the tank is the fumes," claimed Whitacre. "That just gives you better combustion. I'm most impressed. It's a different approach, one that works with gas already vaporized. Why wasn't it developed before? Because everybody tried to make the carburetor work better instead."

Ogle, too, believes that his invention is something that "could have" been made to work before but wasn't.

"That's why this system is a break-through, and nobody can really understand what it is until the engineers have a chance to take it apart and see what's going on. If you base your arguments on conventional fuel systems, I could see why people would doubt this. Mine is a completely different system that works on *energy* taken out of the gasoline. The normal engine takes fuel out of the tank. With this system, you leave the gas in the tank and take the fumes from that gas out. The fumes are the explosive part of the gasoline. The problem is that everybody kept thinking the carburetor is indispensable to the cycle, it's not."

When asked about the safety of his system, particularly the fuel tank where gasoline is heated to generate more fumes, Ogle shrugged off the question with a strong statement that his fuel tank is safer than those installed on current models.

"My tank is so thick it couldn't explode," he said, pulling back his early 1960s Beatles-style haircut. "I figured it all out on a computer. You only have about 240,000 to 250,000 pounds of pressure before the conventional fuel tank will explode. My tank, built of half-inch reinforced steel, could endure 360,000 pounds of pressure before blowing. With only three gallons of gas, which is the maximum any of my tanks will hold, you would only generate about 240,000 to 250,000 pounds of pressure."

In case of a backfire, Ogle said the fumes would be vented to the atmosphere via a safety valve installed in the aircraft hoses that connect the fuel tank to the engine. "If we were going to have an explosion, I guess you might say that it should have happened when the car died on the way back from Deming. But the safety valve automatically went into action when the engine pressure dropped and vented the fumes outside the system.

Ogle worked on his system for the past five years--not an easy task. There were many times when he wanted to throw the wrench in.

"The only thing I knew I needed was the pistons to go up and down," he said gesturing with his hands in a vertical motion. "And all you need for that is an explosion. I sat back and started thinking what it took to do that. The answer? The fumes."

Ogle credits his four years of training in Kung Fu with helping him to overcome many of the obstacles with developing his fuel system. "Kung Fu is more of a mental attitude," he said, "as compared to karate or judo which uses force. Kung Fu teaches you to look for the pressure points, but most important, to use mind control. It's a styling art. It taught me not to give up."

The German-born young man, who looks younger than his 24 years, got off to an unusual start with his fuel system. He was 19 years old and was tinkering around on a four-cycle lawn mower. He punched a hole in the top of the engine's fuel tank, removed the carburetor (more out of curiosity than anything else) and inserted a hose into the carburetor jet, connecting that to the fuel tank.

"The lawn mower ran for 96 straight hours at idle speed," he said. "I put fans around it so it wouldn't burn up." From the lawn mower, Ogle advanced to the mighty automobile engine. "The principle's the same, only the engine is more complicated."

He tried his budding invention out on several cars, and progressed in stages, having satisfactorily overcome one hurdle only to encounter another. The first car, a 1964 Oldsmobile, was a failure. He got only eight miles to the gallon. But it was on this Oldsmobile that he first experimented with removing the carburetor. He learned then that combustion was more complete, and that he could extract more energy per pound of fuel without the carburetor.

"The Olds ran lousy. It had very little acceleration, and, of course, got terrible gas mileage. Most of the time the engine stalled. I knew I had to get further into the thing." He then designed a system for heating the fuel tank which solved the stalling problem.

It was back to the drawing board, however, because he still had a problem of low gasoline mileage to solve. That's when he came up with his "filtering" system, which he claims is the "real key to the system." After designing the filters, he tested the system on his gray Ford Thunderbird, driving the car on the road and in laboratory simulation for more than 140,000 miles. The T-Bird got from 118 to 140 miles per gallon, a matter that didn't go unnoticed by his wife, Monika. "We only had to fill up about once a month," she quipped, adding that the car got plenty of driving in the city.

The Patent Office examiners in Washington are currently reviewing the blueprints of his system, however, the question has been raised that a patent may have already been issued to a person or company for a system similar to Ogle's. The company that has come up most often has been General Motors, although a man named Frank Read, in Fort Worth, Texas, who said he has designed a carburetor adjuster that will triple gas mileage, discovered as many as 19 patents that might be "similar" to Ogle's during his own patent search in 1975-76.

"If that's the case," Ogle shrugged, "why wasn't it on the market? Anyhow, I honestly doubt that anybody has a filter system like mine or has ever thought of it."

The specialist in fuel system design, who went to mechanical trade school rather than college "because I saw too many people with master's degrees looking around for jobs," said he would be

very interested to know why the holder of a patent to a fuel-saving system such as his had not put the invention into production.

Since the completion of his invention, Ogle has received hundreds of phone calls. One, in particular, came from a Shell Oil representative who asked him what he would do if somebody right now offered him \$25 million for the system. Ogle's response: "I would not be interested."

"I've always wanted to be rich," Ogle said as a broad smile crossed his face, "and I suspect I will be when this system gets into distribution. But I'm not going to have my system bought up and put on the shelf. I'm going to see this thing through--that I promise."

Ogle has already encountered a situation that was a disappointment to him. He believes an official from the federal Energy Research and Development Administration, who had viewed the Ogle system and rode in the Oglemobile, "took a turn around" after he went to Washington, D.C.

The official, R.W. Hurn, of the ERDA research lab at Bartlesville, Oklahoma, was cautious and reserved with his comments about the system. He said the system was "rudimentary in construction and "obviously needs much refinement," but added, "that's not at all unusual with new engineering concepts. " The one point Hurn commented on, without reservation, was that he did not think a hoax was involved. "That's the one thing I personally feel with strong conviction."

In a statement prepared by Hurn for U.S. Sen. Lloyd Bentsen, D-Texas, he reiterated some of the statements he had made in El Paso, where he talked with the press under the hot sun in the back of Peck's garage. He said, for example, that he had not seen verified experimental data to support the 100 mile-per-gallon claims of Ogle's, nor had he seen measurements appropriate and adequate to support Ogle's claim of engine pollution characteristics. However, the statement to Bentsen contained the following:

"In my opinion, certain claims (as I understood them to have been made) may be faulty, but, as stated before, not necessarily deliberately misleading. Hurn said he also could not make a technical assessment of the fuel system potential for further development.

"The whole thing sounds kind of fishy," Ogle said, after reading a telecommunicated copy of Hurn's statement. "The government must be getting pressure from somebody. He said one thing to me when he was here, and then turned completely around after going to Washington. I mean," he said gesturing with his hands, his tattooed arms out stretched, "we knew the system was impractical at this stage--but it is as far as could bring it without engineering help. Hurn said that he thought things could be worked out. Well, I'll, tell you one thing, if there is a real energy problem in this country, and they don't consider this system as an alternative to the problem, then there must not be much of an energy crisis.

"I realize that it's hard to break people away from the conventional designs. But if anybody doubts that my system doesn't work, after we've proven all the federal standards and regulations, then they shouldn't buy it."

The young man who opted for dropping out of high school, but returned later to obtain a graduate equivalency degree, who studied at the University of Morgantown Trade School in West Virginia, who specialized in fuel systems, welding, electronics and auto mechanics, has the determination to take on all comers.

"I decided a long time ago to achieve something, and feel now that I've I achieved what I set out to do."

But the battle isn't over