



Lee Roger's "air power" kit converts any gas auto to compressed air.

INVENTOR DEVELOPS KIT TO CONVERT GAS ENGINES TO AIR

Compressed Air Powers This Conventional Auto

By Mark Newhall, Managing Editor

We've heard stories for the past couple years about an inventor in Florida who has figured out a way to run conventional internal combustion engines on compressed air.

Now, thanks in part to a report by a free-lance writer in "On Magazine", we've received further details and photos of the air-powered car invented and patented by Leroy K. "Lee" Rogers, a Ft. Meyers, Fla., building contractor. Rogers, who was inundated after early reports on his invention by crowds of reporters, manufacturers, potential investors and the just plain curious, has apparently gone "underground".

Rogers began work on the air car in his garage in 1979, trying to find a reliable way to feed compressed air to conventional gas engine pistons. His first car was an 8-cyl. 318 cu. in. 1977 Dodge Aspen wagon.

Rogers stripped the car of its radiator, fuel pump, carburetor, spark plugs, and exhaust system. He replaced the engine's carburetor with a "distribution block", a rectangular hollowed-out aluminum box that channels compressed air to each of the eight cylinders. Special valves replaced the spark plugs, and the hole where the fuel pump had been attached to the engine was plugged. All emission control devices were scrapped and the entire exhaust system was replaced with inexpensive plastic PVC pipe.

Glynn Wiggins, Hendersonville, Tenn., is an instructor of auto mechanics who recently received his doctorate in auto mechanics education at the University of Tennessee. He's seen the converted car and helped Rogers iron out some of the bugs in the system.

"The engine makes almost no noise. Exhaust air is actually cooled as it's exhausted because of the sudden drop in pressure, which is how

refrigeration systems work. The day I was there the outside temperature was 80 to 85° while the engine exhaust temp. was 40 to 50°," Wiggins told FARM SHOW. "The engine is also very powerful. I can kill the engine in my own 400 cu. in. Pontiac by putting my hand over the exhaust pipe but I couldn't even hold my hand over the exhaust on the air-powered engine. When the car went for its first test drive, it accelerated so fast it lifted the front wheels of the car off the ground."

Here's how Lee Rogers described the experience of driving his air car to "On Magazine": "The difference in driving an air car and a conventional one can be compared with the difference in changing from an automatic to manual transmission. The driver has new sensations to deal with, but basically that's all. One adjustment is in the acceleration. In order to gain speed in a gas-powered car, you have to put the gas pedal halfway to the floor. With the air car, it only takes a foot movement of a quarter inch. The acceleration rate is instantaneous."

The engine works on just 80 lbs. of air pressure. Rogers removed the gas tank and replaced it with three small tanks about the size of pressurized-carbonated beverage containers that'll hold 2 to 3 cu. ft. of air. A key feature of the air system is that it takes in a tremendous amount of outside air — about a 20 to 1 ratio to the pressurized air — and recaptures the pressurized exhaust air in the air storage tanks. In other words, Rogers says the car pressurizes enough air on the go to help power itself and require less refilling.

"The system has to recapture 1/20th of the air passing through the engine. One of the problems left in developing a marketable kit that'll install on any engine is that the blower used to recapture pressurized



Tree saw blade (48 in. in dia.) moves into the tree automatically as it cuts deeper.

DROPS A 24-IN. TREE IN 85 SECONDS

New Tractor Tree Saw Speeds Land-Clearing

Arm weary chain saw handlers are taking a close look at a new tractor-mounted tree saw that'll cut through a 24-in. tree in 85 sec. with its big pto-powered circular blade.

Built by Strobel Industries, Clarks, Neb., the new saw is designed to be a super land clearer that can clear trees off an acre of ground without the need of a dozer or other heavy equipment. Once trees are cut and cleared, the saw doubles as a stump grinder, using carbide teeth inserts which can stand up to the wear of sub-surface operation.

The saw has both pto and hydraulic controls and can be controlled entirely from the tractor seat. Here's how it works:

The operator backs the saw up to the tree to be cut. Hydraulics lower four short stabilizing legs below the

saw frame to hold the saw in place. The pto is engaged to run the blade and the hydraulics activated to move the blade automatically into the tree. A large hydraulic cylinder equipped with a grip plate is mounted on top of the saw frame to push the tree over as it's cut so it can be dropped anywhere.

The saw cuts through trees up to 24 in., cutting from just one side. It'll handle larger trees by cutting from two sides. The company is designing a "cab guard" attachment to fit on the frame of the saw.

It operates on a 540 rpm pto with a minimum 125 hp. It weighs about 2,200 lbs. and sells for \$3,200.

For more information contact: FARM SHOW Followup, Strobel Industries, Box 255, Clarks, Neb. 68628 (ph 308 548-2254).

air off the engine is too efficient. It needs to be down-sized to capture only as much air as is needed," Wiggins explains.

Rogers starts the engine with the car's electric starter and then opens the throttle, or air supply lines. "After 3 to 5 min. of operation, the exhaust is actually cool to the touch. The engine is simple, powerful, quiet running and has low maintenance requirements. I detected no contradictions to the inventor's claims. It went far beyond my expectations," Wiggins told FARM SHOW.

The air-powered engine conversion kit reportedly will work on any gas-powered engine. Rogers has already installed his second conversion kit in a 4-cyl. Chevrolet Vega engine. The idea may also work in diesel engines but, since they operate at higher pressures and don't have spark plugs, a different approach

would have to be taken.

Wiggins says the biggest roadblock to getting the Roger's conversion kit — which has been designed to cost \$1,000 to \$1,500 — into production has been a lack of funds to finish testing.

"He has had many offers of money but everyone wants to buy the invention outright. He figures it would never get on the market if he did that, so he has continued to finance all research and development on his own. There's no doubt the technology is there but it will take time to put everything together," says Wiggins.

Rogers has an unlisted phone number and he has moved several times in the last couple years, but he does have a mailing address.

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