

The little tractor that could

Start-up business gets its unique idea into production with the support of Berendsen and Danfoss

One of Danfoss' newest customers is a small business that's on a mission to make a big difference in the world. And soon, our Ames factory will produce parts to support this company's innovative plan.

The company is called CleBer – named for its creators, Horace Clemmons and Saul Berenthal. Les Mosteller, Danfoss Power Solutions Sales Director for the Eastern Region, first heard about CleBer from Bill Wallace, an account manager at our distribution partner Berendsen Fluid Power in Birmingham, Alabama. Bill arranged a meeting with Horace Clemmons at his home.

"We drove far back into the mountains, down a dead-end road in northern Alabama to get to Horace's home in a remote valley," recalled Les. "We sat

around Horace's dining room table and talked about his dream to take his simple tractor design all over the world to support farming in places like Cuba, where there is a great need for modern agriculture equipment."

CleBer's story:

Horace and Saul, a Cuban-born software entrepreneur, met at IBM more than 45 years ago. They left IBM together in 1983 and created and sold three successful companies that made software for the retail industry. When the Cuban government opened its doors to trade in December 2014, they got together again to investigate how to use their resources to form a business to benefit the Cuban people. Their research revealed that food production was a major problem in Cuba.

Cuba's food crisis

Cuba imports 80% of its food

The Cuban government has returned land in roughly 40-acre tracts to 300,000 family farms

There are about 60,000 tractors in Cuba, most of which are more than 30 years old



CleBer's Oggún tractor has a simple rear-engine design patterned after the Allis-Chalmers Model G. CleBer's goal is to foster local economic growth in underdeveloped countries by having tractor parts locally sourced.

Horace's agricultural roots sparked the idea for the tractor business. Knowing that they would have to overcome cost and trust barriers to get any tractor into Cuba, Horace and Saul decided to go with a simple design and use the open manufacturing concept, meaning that parts are readily available "off the shelf." CleBer's tractor is called Oggún, named for the god of metal works in the Santeria religion in Cuba.

The old Allis-Chalmers Model G (built in the 1940s and 1950s) inspired the Oggún's design. The Oggún is a small, rear-engine tractor with a hydraulic system designed by Berendsen. Robert Harris, a DPS Systems Application Engineer in Easley, worked closely with Berendsen on the project. Danfoss products on the Oggún include the DDC 20 drive pump that is currently built in Osaka as part of Daikin-Sauer Danfoss, but slated for Ames localization later this year; an implement pump from Turolla; the drive motors; and the steering unit.

Horace Clemmons said it was a real pleasure to work Danfoss and Berendsen to bring his idea to life.

"Without the Danfoss family we would not have been able to accomplish what we have, in the time that we have," said Horace.

Not a tractor, **a way of thinking**

CleBer's goal is to assist developing countries in making products rather than selling products to them. Instead of shipping a tractor to Cuba or South America, they ship a box with the hydraulic parts. The other 60% of the parts are to be sourced locally, explained Jacob Busman, Eastern Region Account Manager, who works on the CleBer account.

"Horace is a very smart guy who has a very innovative way of thinking," said Jacob. "He is trying to do something that no other company has done. He isn't in it to make money, but to help developing countries overcome challenges and strengthen their local economies."

The Oggún's cost varies by its features. A 19-horsepower gas model weighing 1,720 pounds sells for \$12,500. A diesel version sells for \$15,500. Les said Horace's goal is to get the cost down to under \$10,000, which should be possible if parts can be produced in the country where the tractor is to be used.

CleBer **today:**

The *Miami Herald* reported that during a visit to Cuba in March 2016, President Barack Obama showed excitement for the CleBer concept, saying that an Alabama

company would be the first U.S. company to build a factory in Cuba in more than 50 years. But acceptance into Cuba did not go as planned.

While CleBer continues to work on establishing relations with Cuba, other countries have taken notice of its potential for helping small farmers and formed a partnership with CleBer. CleBer now has distributors in four countries and has sold tractors in eight countries. They have not given up on Cuba yet, and just returned to Havana in mid-February for a farm/cultural exchange.

Of the 100 or so Oggúns produced last year, all were assembled in Alabama and sold domestically across 20 states. The tractor's small size, zero-turn radius and ease of use is getting attention from small farmers who support the local food movement, along with other interesting applications, such as planting food plots for hunting.

"They've only been doing this for about 14 months now," said Jacob. "They are in the infancy stage of developing relationships. I know there is one particular location

that is interested or has started the work of being able to source the steel and the commodities. There is a lot of interest in what they're doing."

Jacob said CleBer expects to double its production this year and he is excited to see what the future brings.

"It's been great to see how our distributor, Berendsen, got behind CleBer's vision to develop a hydraulic system that can rival the big players and be affordable for people in developing countries," said Jacob. "It's an inspiring project to be a part of."



Horace Clemmons compares his Oggún to a typical tractor used in large farming operations. As a single row tractor the Oggún is suited for small farms with 20-60 acres and is designed to be cost effective, simple, rugged and easy to repair.