

Record figures for SinterCast



RAM Super Duty pickup with Cummins 6.7L CGI diesel engine

The Swedish company SinterCast's production has grown by more than 30 percent in the past year alone. 25 years ago it was different, then they had to fight for someone to believe in them.

In 1983, Lennart Bäckerud, a professor at Stockholm University, was ready to start the company SinterCast. He had worked for years to find a reliable method for producing Compacted Graphite Iron (CGI).

Compacted Graphite Iron was first patented in 1948, but the manufacturing process requires narrow process control, and no one had been able to establish a reliable method before Professor Bäckerud. The iron is made from recycled scrap that is melted down and then alloyed according to a precisely monitored process. It contains more magnesium than regular grey iron, making it stronger and less susceptible to cracking. Compacted Graphite Iron is 75 percent stronger and 45 percent stiffer than regular grey iron and aluminum. Therefore, it is suitable for cast components that have simultaneous mechanical and thermal loads, such as engine blocks and cylinder heads, exhaust manifolds and turbocharger housings. Today, the



SinterCast-CGI is used in the Ford F-150. "The best-selling engine in America's best-selling vehicle"

SinterCast-CGI is found in engines for cars, buses, trucks, trains, ships and agricultural machinery. But the road to success has been long.

SinterCast's latest quarterly report shows record figures. "Electric cars receive all the attention, but the need for cars with internal combustion engines cannot be replaced in the foreseeable future", says CEO Steve Dawson.

- How best to contribute to the environment? Take a large car that is manufactured in large volumes and consumes a lot of fuel and replace a five-liter petrol engine with a 2.7-liter diesel engine. Multiply this by a million. Batteries are good, but the annual volumes are low. We produce large volumes; a thousand engines per day.

Steve Dawson adds:

"It's hard to see how without the diesel engine we can even get close to the climate target in just over ten years."

SinterCast is happy to lift this quote from four members of the Royal Academy of Sciences published in the Swedish newspaper Dagbladet in April 2018.

- If you have the perspective that transport is a bad thing, then we probably don't satisfy your perception of a green company. But if you have the perspective that transport is part of modern life, then we should

do it as efficiently as we can. And that's what we do. We are a technology company. I have always seen SinterCast as a company that is aware of the need to reduce carbon dioxide and make the environment better.

- This is one of the good things about electrification. It has pushed the internal combustion engines to get better. Everyone needs a push.

When Professor Bäckerud and his partners started SinterCast, the company focused on the US auto industry, moving the headquarter office to Detroit. That's how Steve Dawson came to SinterCast. He is a Canadian engineer, trained in metallurgy. He also holds a doctorate. He started as technical director at the company in 1991. He has been CEO since 2002.



CEO of SinterCast Steve Dawson

Sometimes he gets comments that it is unusual for someone to sit on a CEO post for so long. But Steve Dawson has seen no reason to change his workplace because he, as the CEO, is able to apply the metallurgical skills he acquired through his education.

An important breakthrough for SinterCast was in 1999 when Audi began producing the first Compacted Graphite Iron engine in the world. It was a 3.3 litre V8 diesel engine and was available in the Audi A8. Although the sales of the car did not reach large volumes, this breakthrough was important for the industry's confidence in CGI.

FACTS:

SinterCast production 2010-2019, number of engine equivalents

2010: 1 million

2015: 2 million

2019, February: 3 million

2019, September: 3.9 million
annualized

The next breakthrough came on Midsummer Day in 2001; a special date for a Swedish company, Steve points out. On this day, Ford approved the production of the first high volume Compacted Graphite Iron engine. The engine is still used in several different cars.

- In the first half of the 1990s, we needed to go out to the industry and explain the technology. They were skeptical. It was a struggle to persuade them. There were no production references to refer to. We had to persuade them with technical explanations and PowerPoint presentations; we had to use everything we had. At that time, many told us that CGI was too difficult to produce, too expensive. Now I am proud that every company that has manufactured a SinterCast engine has gone on to produce more CGI engines. Every time they had a positive experience and decided to produce more CGI. Obviously, what we do is reliable and good", says Steve Dawson.

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