

Achates eyes Indian auto market with new engine

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It is barely seven years old but the US-based Achates Power already has over 800 patentable innovations in its kitty.

Its mandate is simple: Build better engines to meet the environmental challenges of the global transport industry.

At the heart of Achates Power's business is its two-stroke opposed-piston (OP) diesel engine, which assures cleaner emissions in cars and commercial vehicles. Unlike conventional engines, this one does not have a cylinder head or valve train and its two pistons face each other. Interestingly, the two-stroke OP was used in ships, tanks and locomotives decades ago.

"I think our technology enables a country like India to go more quickly to clean engines in vehicles because the economic pain will be reduced. While there are savings in the cost of the engine, the fuel savings are vastly greater," Mr David M. Johnson, President and CEO, told *Business Line* at the company's San Diego headquarters.

He said there was no



question about the potential of this engine in markets like India or China as both eventually need to "climb the emissions ladder". Typically, the biggest obstacle here is the economic challenge associated with the transition.

"While these are important issues, I would argue that every single economy be it India, China or Brazil, will get to the same standards that we have today. This technology will ease that transition because it saves you money," Mr Johnson said.

Across the world, there are nearly 80 million units of capacity for engines and this gives Achates the opportunity to spread its footprint in the US, Europe, China or India. Any vehicle maker can use the crankshaft line, block line or

pistons and deploy "a whole bunch of infrastructure" to make this engine.

"Our idea of a business plan is, rather than make the large investments ourselves, to work with those companies that already have those plants and license that technology to them. In the process, they can make better engines in their facilities and we are in partnership, as opposed to in competition, with them," Mr Johnson said.

Achates makes no bones about the fact that, unlike its vehicle clientele, it is not a manufacturing expert. Its own team has "some very good" machinists and engineering talent, but not in high volume manufacturing because this is not part of the business model. "The people here are experienced and know how to make this technology work. As we take it from the size of the engine, we will be the ones who can bring that knowledge base to the partners. All the companies we are associated with are working on four-stroke engines with cylinder heads, but they do not know about two-stroke OP engines," Mr Johnson added.