

ACHATES POWER: DIESEL ENGINE TECH GROWS SMALL AND SMART

Two-stroke diesel engines have been worked on for a while, but they never quite featured on production cars, until now that is. American engine developer Achates Power have been working on the technology for many years, and today are very close to having a light, efficient, economical, and powerful two-stroke diesel engine suitable for cars and light commercial vehicles.

Achates Power, located at San Diego, is a small unit with dedicated, talented, innovative and motivated engineers and scientists working on this prototype engine. This engine is compliant with the European emission standards, and has been tested for 2000 hours. The results of these tests were

that the engine proved to be 15 per cent more fuel efficient, thanks essentially to lesser moving parts. That's the special part – the engine has no cylinder head and no valve train thanks to the two-stroke cycle, and this results in less friction losses and also savings on material costs, which reduces the manufacturing cost for the engine.

The global internal combustion engine market stands at \$300 billion, and this revolutionary engine is capable of giving a big blow to that market by changing the fundamentals of the business. The company already has a series of patents in its name, and received numerous recognitions and accolades, from a variety of fields

pertaining to the automotive world.

The visit to the Achates facility was an eye-opener, especially their laboratory. Use of laser Doppler amemometry and laser induced fluorescence to characterise fuel spray was one single channel to show their way of working, thinking and developing. Most manufacturing plants are neat and clean, but this place had the look of a research laboratory with motivation and commitment.

