

Research engine developed at Helsinki University of Technology

An advanced research engine was officially started on 31 March 2004 in the Internal Combustion Engine Laboratory of Helsinki University of Technology.

The single-cylinder Extreme Value Engine, better known as the EVE engine, has been designed for operation under extremely severe load conditions. The engine is capable of operating with cylinder pressures up to 400 bar and with speeds up to 1600 rpm. Features such as common rail fuel injection, electro-hydraulic inlet and exhaust valve actuation, and external supply of charge air with up to 8 bar pressure guarantee that the EVE engine will provide an attractive and highly interesting basis for engine research, both domestic and international, for many years to come. The engine has the same strategic dimensions as the Wärtsilä 20 engine, i.e. bore 200 mm and stroke 280.

Wärtsilä has actively participated in the work of the project steering team. In addition, the company has given the project team access to the know-how of its engine technology experts and its sourcing network contacts. The project is mainly sponsored by the National Technology Agency of Finland (Tekes). Other sponsors are Academy of Finland, Wärtsilä and other industrial partners. ■



The EVE engine.

Miami (Ohio) University selects Wärtsilä for intermediate peaking power

New engines provide intermediate and peak load coverage, plus additional revenue for the university.

Miami University at Oxford in Ohio, USA, has selected Wärtsilä to supply an intermediate peaking power system to supply electricity to its students during peak and intermediate demand hours.

Wärtsilä will supply two Wärtsilä 18V34SG generator sets for the project, each producing 5732 kW. Each generator is scheduled to operate up to 2500 hours annually. The project will increase the reserve capacity of the university's power system, reducing the possibility of power outages. The plant was designed by Cummins & Barnard, Inc., of Ann Arbor, Michigan, USA. Cummins & Barnard provides engineering and consulting services for power generation, project development and facilities engineering.

"This project continues to underscore the validity of the decentralized generation model," said Frank Donnelly, vice president of Wärtsilä North America, Power Plants. "By providing robust and reliable intermediate peaking power to universities, as well as to municipalities and independent power producers, we enable them to increase the reliability of power distribution to their customers. In this specific case, their customers happen to be the students, faculty and administrators of Miami University."

Miami University is a state-assisted university. Its Oxford campus has 15,000 undergraduates and 1,300 graduate students.

Total enrolment including regional campuses in Hamilton, Ohio and Middletown, Ohio is more than 20,000.

"We chose Wärtsilä because of their unique product line and reputation for delivering engineered equipment packages on time and on budget," said Doug Hammerle, Associate University Engineer. "We were impressed with their range of experience and ability to meet project goals." ■

