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Arbeitskreis Stirlingmotor München

The Stirling Chain Reaction

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Abstract:

The Stirling chain reaction was started

The first WhisperGen® stirling engine was installed in Munich in November of the year 2000. F. Waldkircher heats his house with 5kW and produces 750 W electricity. He has a battery bank with 24V and uses diesel fuel. All electricity will be consumed in the house by using an inverter for 230V. Later F. Waldkircher will install the WhisperGen® in his boat. This type of WhisperGen® (DC/ Diesel) is certified with the European CE sign. He demonstrates the use of the Micro-Combined-Heat-Power System (MCHP) to interested individuals. Visitors of the MCHP remarked: "It is really a whispering generator".

P1

By means of the project P1, K. Kübler wants to demonstrate the Eco-Solar-House in Munich. It includes the WhisperGen® MCHP with gas and 230V – grid connected – generator. The project shall be scientifically accompanied by the University of Applied Science in Munich. The project concept has been reviewed by the environmental department of the city of Munich since 1999 and therefore the Stirling work group is looking for other possibilities of carrying out this project.

P2

W. Wesinger, a long-time member of the stirling work group in Munich, built a low-energy house in the year 2000. He plans to heat it with a WhisperGen® (AC/ Gas fired). This type has no CE-certification and is only available as trial and evaluation system; however there are more than 12 WhisperGen® (AC/gas fired) installed as trial and evaluation systems in Europe. It is therefore necessary to find cooperative partners to get special permission (gas and electricity/ grid connection). The task is to find out which conditions are necessary to get the certificate for gas and electricity. The technical tasks are to check the running time and to find out what service is necessary after 2000 hours of use. The experiences with the WhisperGen® will be documented. A further question is: under which conditions is it economic to install a WhisperGen®? W.Wesinger would be happy to find a contractor, who sells him heat and electricity.

P3

A well-known company in Munich has been testing the WhisperGen® (DC/ Diesel) during the spring of 2001. The tasks are to find out how much electrical output the engine has and how much noise it produces. Further tests are planned as well. The stirling work group would like to cooperate with the research center of this company.

P4

The government of Germany has implemented some new laws to support the introduction of techniques to use renewable energy. In 20 years all atomic reactors will be shut down. In all cases, the Stirling engines can use renewable energy: solar, wood chips, biogas, as well as vegetable oil. A Stirling does not work with water or wind. It is an interesting idea to use vegetable oil as fuel. It is an economic method and good for the climate of the world as well. The work group wants to start up a project with a WhisperGen® fired with vegetable oil. Therefore we are looking for sponsors.

P5

Furthermore, the Stirling work group in Munich wants to develop a mobile MCHP-system in order to demonstrate the Stirling technology. The first commercial Stirling engines are now available. However, only a few people know how they work. The next few years will decide if the Stirling engine will ever come into the market. Many people believe that in the next two or three years the fuel cell will be produced for MCHP. But there is still a long way to go. This is the big chance for the Stirling. Let us start the Stirling Chain Reaction now – for our future and the future of our childrens!

For more informations:

www.ekhg.fhm.edu

www.whispergen.com

www.victronenergy.com

www.muenchen/buendnis-fuer-oekologie.de