Title: “Powertrain components for a novel Wave Energy Converter”

Time: January 2013 – June 2013

Examiner:

Supervisor: Stefan Björklund, KTH Machine Elements

Industrial Supervisor: Patrik Möller

Place: KTH Machine Element

CorPower: Osquars Backe 31, 4tr

Project Description:

The project is suited for 1 – 2 students.

The purpose is to design, build and characterize components in a novel powertrain system for a Wave Energy Converter developed by CorPower Ocean AB. The powertrain combines hydraulic and mechanical elements in a unique way, aiming at maximizing efficiency and load capacity while minimizing size and weight. The project includes the following steps:

a. Problem statement, analysis of solutions
b. Design of powertrain components
c. Manufacturing and characterization of mock-up modules
d. Assembly and test of powertrain
e. Performance measurements
f. System integration (powertrain, generators & power electronics)
g. System commissioning
h. Analysis of results
i. Conclusions and reporting

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