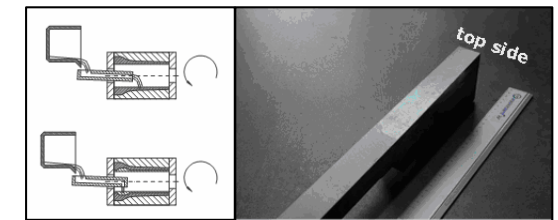
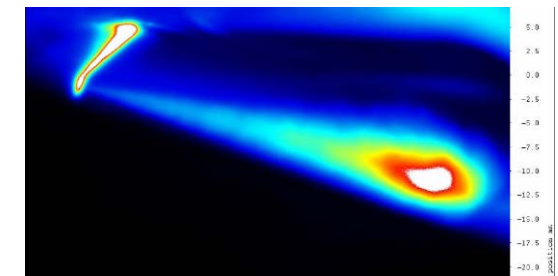
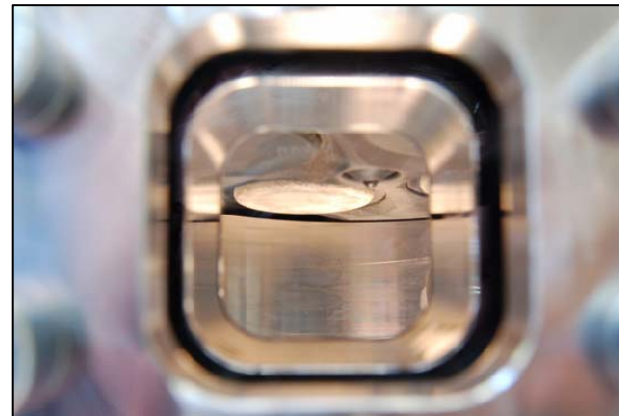
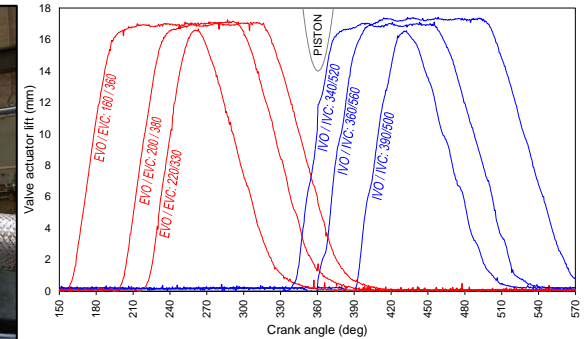
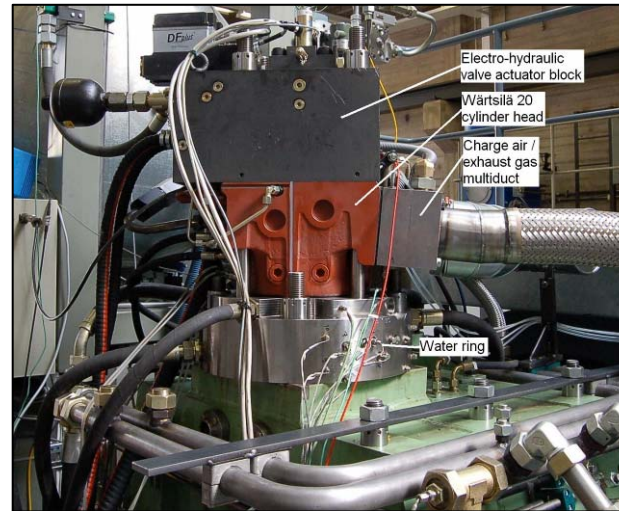


# TASK 1.1: Mechanics of engine with extreme design parameters

**Objectives:** To study the operation of engine under extreme conditions, design new components and test them on a research extreme value engine (EVE) at HUT

## Final Results & Achievements:

- Valve actuators and simulation model tested successfully. NOx reduction with Miller timing demonstrated. EVE engine performance comparable to production engines.
- New optical components tested with 220 bar static pressure and with peak cylinder pressure of 40 bar @ 900rpm.
- Sectional Bimetallic Casting development and Fatigue tests for cylinder liner materials completed
- Bearing rig tests and reference calculations completed. Splitline testing, high load/wear test results ready



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