Steam Linear Engine

Sponsor : LIRA PROGRAM / INDEVCO

Project Overview

The purpose of this project is to design a steam prime mover, were pistons are in an opposed position, at 90 degrees relative to each other (total number of pistons are four). The shaft of the four pistons follow a linear path, where the pistons are connected thru a special gear box, comprising a set of planetary gears connected to each piston. The center of gravity of the four pistons is located in a plane perpendicular to the output shaft, connected to the planetary gear mechanism.

Project Areas

- Heat transfer/ Thermodynamics/ Kinematics (2 MEE Students)

Project Deliverables

Project deliverables consist of the following:

- Design of the optimum thermodynamic steam cycle, dictating the piston's mechanical dimensions (stroke & diameter).
- Complete design of the system's kinematics, generating the exact movement of the piston
- A complete set of CAD drawings (both assembly and shop drawings)

Project Constraints

- NA

Advisors: Drs. Barbar Akle and Wassim Habchi

Students:

Team1	Sam Hamadeh Ali Hoteit
Team2	Naamtallah Wehbe Abbas Zein