

C518575 : MAJOR MECHANICAL ENGINEERING

KEY WORD: STIRLING / HOT AIR ENGINE / KINEMATIC ENGINE.

TARACHAN CHANTANA : A STUDY OF THE STIRLING ENGINE FROM ITS MODEL
BELOW 1 KILOWATT. THESIS ADVISOR : ASST. PROF. CHANCHAI LIMPIYAKORN.
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This research has the objective to study the various factors affecting the operating of kinematic Stirling engine by construction a gamma type small model Stirling engine that has maximum brake power output not more than 1 kilowatt.

The result from the research is a Stirling engine operates by thermal from heating coil supply by electricity to the air which is a working fluid in the engine. Transmission system from piston to shaft is an eccentric mechanism that can reduce the side forces acting on the cylinder.

The factors which influence the operating of engine consist of air leak, friction in engine and transmission system, inertia forces result from weight of moving elements and unbalancing.

ภาควิชา.....วิศวกรรมเครื่องกล

ลายมือชื่อนิสิต..... *tarachan chantana*

สาขาวิชา.....วิศวกรรมเครื่องกล

ลายมือชื่ออาจารย์ที่ปรึกษา..... *Chanchai Limpiyakorn*

ปีการศึกษา.....2539

ลายมือชื่ออาจารย์ที่ปรึกษาร่วม.....