

Title (en)
TURBO-MACHINE THRUST BALANCER

Title (de)
SCHUBAUSGLEICH FÜR EINE TURBOMASCHINE

Title (fr)
DISPOSITIF D'ÉQUILIBRAGE DE POUSSÉE DE TURBOMACHINE

Publication
EP 2516864 A1 20121031 (EN)

Application
EP 09806060 A 20091223

Priority
NO 2009000445 W 20091223

Abstract (en)
[origin: WO2011078680A1] A turbo-machine for automatic balancing of fluid-dynamic thrust forces and having an automatic thrust force balancing system comprising: - a balance piston (5) around a discharge end of a rotating shaft (3); - a balance chamber (7) for receiving a leakage flow and for communicating with a downstream side of the balance piston (5); - a balance flow return line (8) connecting the balance chamber (7) with a suction end (39) for conveying said leakage flow; and - a control valve (25) connected to the balance flow return line (8) for regulating the leakage flow rate, wherein the control valve (25) is connected to a temperature controller (26) for regulating the opening of the valve (25); and - the temperature controller (26) is connected to, and receives control signals from, at least one temperature sensor (21, 22) sensing and forwarding the operating temperature of a thrust bearing (9) in the turbo-machine.

IPC 8 full level
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Citation (search report)
See references of WO 2011078680A1

Cited by
CN114622995A; EP3734080A1; EP3808984A1; US11933312B2

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