

METHODS AND SYSTEMS FOR PERFORMING DIAGNOSTICS
REGARDING UNDERLYING ROOT CAUSES IN TURBINE ENGINES

ABSTRACT OF THE DISCLOSURE

A method for performing diagnostics for an engine comprises the steps of identifying an engine component as potentially being related to operational data of an engine, calculating a deviation from a thermodynamic model, and comparing the deviation with root cause deviation measures. The deviation relates the engine component to an adjustment to the thermodynamic model with respect to a variable of the thermodynamic model, based at least in part on the operational data. Each root cause deviation measure relates one of a plurality of potential root causes to the thermodynamic model with respect to the variable of the thermodynamic model.

Figure 2