

Title (en)
METHOD FOR THE AUTOMATED DETECTION OF THE INGESTION OF AT LEAST ONE FOREIGN BODY BY A GAS TURBINE ENGINE

Title (de)
VERFAHREN ZUR AUTOMATISIERTEN ERKENNUNG DER AUFNAHME VON MINDESTENS EINEM FREMDKÖRPER DURCH EINEN GASTURBINENMOTOR

Title (fr)
MÉTHODE DE DÉTECTION AUTOMATISÉE DE L'INGESTION D'AU MOINS UN CORPS ÉTRANGER PAR UN MOTEUR À TURBINE À GAZ

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Application
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Abstract (en)
[origin: WO2011095737A1] The invention relates to a method for the automated detection of the ingestion of at least one foreign body by a gas turbine engine, according to which: the instantaneous speed of the rotor (R(t)) is measured; the speed signal of the rotor (R(t)) is filtered in order to separate the static component (Rs(t)) from the dynamic component (Rd(t)) thereof; the filtered dynamic component (Rd(t)) is compared with a standard resonance wave (e(t)) of the rotor in order to obtain an ingestion indicator (TING), the standard resonance wave (e(t)) corresponding to the vibrational impulse response of a rotor; the obtained ingestion indicator (TING) is compared with a detection threshold (S); a foreign body ingestion detection signal is emitted when the ingestion indicator (TING) is higher than the detection threshold (S).

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See references of WO 2011095737A1

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