

## Title (en)

SYSTEM AND METHOD FOR OPTICAL INSPECTION OF OFF-LINE INDUSTRIAL GAS TURBINES AND OTHER POWER GENERATION MACHINERY WHILE IN TURNING GEAR MODE

## Title (de)

SYSTEM UND VERFAHREN ZUR OPTISCHEN INSPEKTION VON INDUSTRIELLEN OFFLINE-GASTURBINEN UND ANDEREN STROMERZEUGUNGSMASCHINEN IM DREHVORRICHTUNGSBETRIEB

## Title (fr)

SYSTÈME ET PROCÉDÉ D'INSPECTION OPTIQUE DE TURBINES À GAZ INDUSTRIELLES HORS-LIGNE ET AUTRES MACHINES PRODUISANT DE L'ÉNERGIE FONCTIONNANT EN MODE VIREUR

## Publication

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## Application

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## Abstract (en)

[origin: WO2014031955A1] Internal components of gas and steam turbines are inspected with an optical camera inspection system that is capable of automatically and/or manually positioning the camera field of view (FOV) to an area of interest within the turbine along a pre-designated navigation path and capturing images with or without human intervention. Camera positioning and image capture can be initiated automatically or after receipt of operator permission. The inspection system includes an articulated multi axis inspection scope with an optical camera that is inserted through a combustor nozzle access port, combustor and transition, so that the camera FOV captures the leading edge of Row 1 rotating turbine blades while the rotor is spinning at up to 1000 RPM. An illumination system strobe light and the camera image capture are synchronized with the blade rotation speed so that images of multiple or all blades may be obtained from a single inspection scope insertion point

## IPC 8 full level

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## Citation (search report)

- [X] US 2007296964 A1 20071227 - NISHIMURA MITSUGU [JP], et al
- [A] WO 9321640 A1 19931028 - BROOKS R ASS INC [US], et al
- See references of WO 2014031955A1

## Designated contracting state (EPC)

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