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(54) **VARIABLE GEOMETRY GUIDE VANE FOR A GAS TURBINE ENGINE**

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See application file for complete search history.

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(57) **ABSTRACT**

A variable geometry inlet guide vane for a gas turbine aircraft engine includes an aerodynamic shell for turning inlet flow to a turbine or compressor and an internal spar spaced from the airfoil shell by an air gap. A number of actuation mechanisms grounded to the spar and connected to the inner surface of the aerodynamic shell adjust the shape of the shell in response to varying operating conditions of the engine, imbalanced aerodynamic loading of the shell or vibration or other transient loads on the shell.

18 Claims, 3 Drawing Sheets

