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**Zhu et al.**

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(54) **CONTROLLING A GAS COMPRESSOR HAVING MULTIPLE MAGNETIC BEARINGS**

(56) **References Cited**

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 71 days.

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(21) Appl. No.: **14/468,028**

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(57) **ABSTRACT**

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A method for controlling a gas compressor is disclosed. The method includes communicating feedback data about two magnetic bearings to a computer including a multi-core processor via a communication link. The method also includes processing the feedback data about the two magnetic bearings where the feedback data for each of the two magnetic bearings is processed on separate cores of the multi-core processor in parallel and issuing a bearing control command to each of the two magnetic bearings in response to the feedback data. The method further includes communicating the bearing control commands to the two magnetic bearings from the computer via the communication link.

(52) **U.S. Cl.**

CPC ..... **F04D 29/058** (2013.01); **F04D 17/125** (2013.01); **F04D 25/06** (2013.01)

(58) **Field of Classification Search**

None

See application file for complete search history.

**16 Claims, 4 Drawing Sheets**

