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(54) Title: METHOD AND SYSTEM FOR REDUCING SEAL GAS CONSUMPTION AND SETTLE-OUT PRESSURE REDUCTION IN HIGH-PRESSURE COMPRESSION SYSTEMS

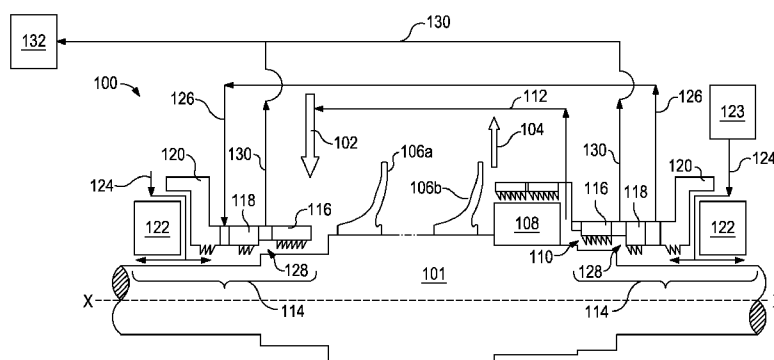


FIG. 1

(57) Abstract: A compressor is disclosed having a shaft seal assembly and system that allows a high-pressure compressor to settle-out at a lower pressure level during shutdown. The seal assembly may be disposed about a portion of the shaft and define a blow-down seal chamber, the seal assembly including one or more gas seals in fluid communication with the blow-down seal chamber. A blow-down line is communicably coupled to the blow-down seal chamber to reference the blow-down seal chamber to a low pressure reference, such as a separate centrifugal compressor, or the like. Referencing the blow-down seal chamber to the low pressure reference reduces the required sealing pressure of the one or more gas seals. A valve may be disposed in the blow-down line and configured to regulate a flow of process gas leakage through the blow-down line.

A. CLASSIFICATION OF SUBJECT MATTER**F04D 29/10(2006.01)i, F04D 17/08(2006.01)i, F04D 27/00(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: compressor, seal, valve, pressure, regulate, reduce

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 62-258177 A (HITACHI LTD) 10 November 1987 See claim 1, Fig 1.	1-20
A	EP 1008759 A1 (DRESSER RAND S.A) 14 June 2000 See abstract, paragraphs [0027]-[0031], claim 1, Fig 1,3.	1-20
A	JP 62-258195 A (HITACHI LTD) 10 November 1987 See claim 1, Fig 1-2.	1-20
A	JP 2003-097487 A (HITACHI LTD) 03 April 2003 See abstract, paragraphs [0021]-[0027], Fig 1-2.	1-20
A	JP 63-246498 A (TOSHIBA CORP) 13 October 1988 See claims 1-4, Fig 1.	1-20



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

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INTERNATIONAL SEARCH REPORT

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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