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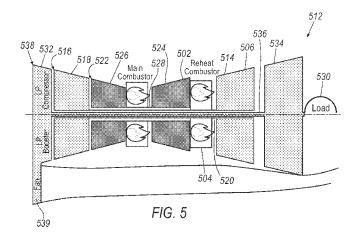
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(54) Title: CAPACITY CONTROL OF TURBINE BY THE USE OF A REHEAT COMBUSTOR IN MULTISHAFT ENGINE



(57) Abstract: One example of a gas turbine engine can include a first compressor and a first turbine connected to the first compressor by a first shaft. The engine can include a reheat combustor, which is disposed downstream of the first turbine, and a second turbine, which is disposed downstream of the reheat combustor. The engine can further include a second compressor, which is connected to the second turbine by a second shaft and is disposed upstream of the first compressor. The first and second turbines can be disconnected from one another, and the first and second compressors can be disconnected from one another. The second compressor may have an outlet including a flow to the first compressor, such that the first and second turbines provide a shaft worksplit. The reheat combustor can be configured to receive fuel and generate a reheat exit temperature, so as to control an apparent capacity of the second turbine based on a plurality of parameters of the second compressor.



### INTERNATIONAL SEARCH REPORT

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a. classification of subject matter INV. F02C6/00

ADD.

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)

F02C

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

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

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C. DOCUME	ENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Х	W0 03/021097 A1 (TMTS ASSOCIATES INC [US]; MCCGOWAN THOMAS F [US]) 13 March 2003 (2003-03-13) page 2, line 26 page 3, lines 17-18 figure 4 page 9, lines 17-24 page 3, lines 1-5 page 11, lines 3-7	1-3,5, 17-20
X	US 5 347 806 A (NAKHAMKIN MICHAEL [US]) 20 September 1994 (1994-09-20) abstract; figures 1,4 claim 1	1-3,5,19

ı	Х	Further documents are listed in the continuation of Box C	).
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Χ See patent family annex.

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US 2012/017601 A1 (EROGLU ADNAN [CH] ET AL) 26 January 2012 (2012-01-26) paragraphs [0009], [0031], [0098] figure 1 claim 11	Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.

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## **INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No PCT/US2014/020731

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