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(54) **Phaser for controlling the timing between a camshaft and a timing gear**

(57) A phaser for controlling the timing between a camshaft (11) and a timing gear, the phaser comprising:
- a rotor (2) having at least one vane (5), the rotor being connectable to one of the camshaft and the timing gear for rotation therewith;
- a stator (1), co-axially surrounding the rotor, provided with at least one recess (4) for receiving the at least one vane of the rotor and allowing rotational movement of the rotor with respect to the stator, the stator being connectable to the other of the camshaft and the timing gear,
- wherein the vane divides the recess into a first pocket (4a) and a second pocket (4b), the pockets being able to receive fluids under pressure, wherein the introduction of a fluid into the first pocket causes the rotor to move in a first rotational direction relative to the stator, and in that the introduction of a fluid in the second pocket causes the rotor to move in the opposite rotational direction relative to the stator;
- wherein the phaser comprises control means for controlling the fluid pressure on opposite sides of the vanes to thereby control the angular position of the rotor with respect to the stator;
- wherein the control means comprise means for selectively adjusting the timing of the opening and closing of a connection between the first and second pockets in order to allow fluid to flow between the pockets using the pressure difference of the fluid in each of the pockets to transport the fluid from the one to the other pocket.

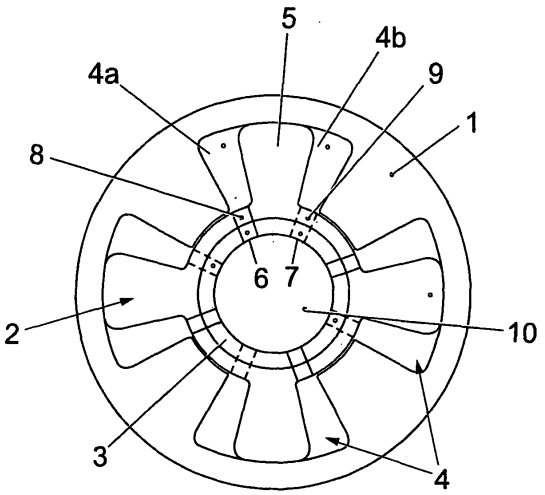

Fig. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 06 25 4273

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	9 January 2007	Clot, Pierre

CATEGORY OF CITED DOCUMENTS

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