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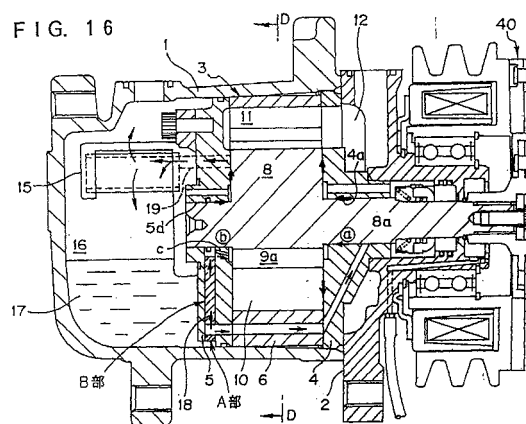
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(54) **Gas compressor**

(57) A valve element (20) is slidably provided midway in an oil passage (18). A discharged jet flow of high pressure refrigerant gas that is from a main body (3) side of the compressor is caused to act on an end face (20a) of the valve element (20). During the compression operation in which the discharged jet flow acts on the valve element (20), by the resulting pressure the valve element (20) is slid against the force of a spring (22) to thereby open the oil passage (18). During the stoppage of the compression operation in which the discharged jet flow is stopped, the valve element (20) is slid by the force of the spring (22) to thereby close the oil passage (18). Thereby, it is possible to prevent a lubricating oil from flowing from an oil pool (17) to a suction chamber (12) side through the oil passage (18) and sliding portions such as an F bearing (4a) and so prevent the occurrence of oil compression in the main body (3) of the compressor at the time of restarting the compression operation.

Alternatively, or additionally, a communication passage (23) linking a discharge chamber (16) side to the suction chamber (12) side is provided. A valve element (22) is provided in the communication passage (23) and is arranged to open the communication passage (23) when the compression operation stops and to close the communication passage (23) when the compression operation starts. Thereby, it is possible to equalise the pressure in the discharge chamber (16) and the suction

chamber (12) when the compression operation stops and so prevent a lubricating oil from flowing from the oil pool (17) to the suction chamber side (12) through the oil passage (18) and sliding portions and the occurrence of oil compression in the main body (3) of the compressor at the time of restarting the compression operation.





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EUROPEAN SEARCH REPORT

Application Number
EP 01 20 1412

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.C1.7)
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X	US 2 235 251 A (BOLDT) 18 March 1941 (1941-03-18)	1	
Y	* page 1, left-hand column, line 36 - page 3, left-hand column, line 3; figures *	5, 7	
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 9 July 2001	Examiner Kapoulas, T
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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