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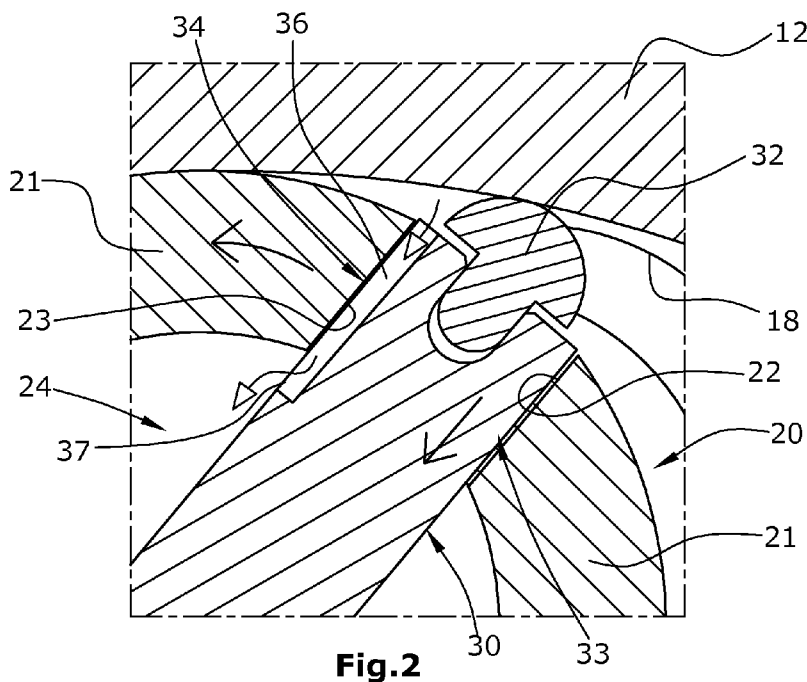


Fig. 2

(57) Abstract: An automotive volumetric vacuum pump (10) is being oil-lubricated and is used for providing an actuation vacuum of less than 100 mbar. The pump comprises: A rotor (20) with a circular rotor body (21) being provided with an oil receiving cavity (24) and rotating inside a pump room (15) which is surrounded by a circumferential pump room wall (12). The rotor body (20) is arranged adjacent to the pump room wall (12). A vane (30) with a longitudinal vane body (31) being arranged radially shiftably in a radial guiding slot (22) of the rotor body (20), whereby the rotor body (20), the vane (30) and the pump room wall (12) define at least two rotating pump chambers (15', 15'', 15'''). A radial oil discharge channel (33) of the vane (30) and/or at the guiding slot (22), whereby the oil discharge channel (34) is provided with a flow opening (37;47;57) in a radial plane. The flow opening (37;47;57) is arranged to be open to thereby allow an oil to flow from the pump chamber (15') through the discharge channel (34;40;50) to the oil receiving cavity (24) only in the retracted position of the vane end portion (33) during the final compression phase of the respective rotating pump chamber (15').

pression phase of the respective rotating pump chamber (15').

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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 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)
 F01C F04C

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)
 EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	WO 2005/093217 A1 (WABCO AUTOMOTIVE UK LTD [GB]; HEAPS DAVID [GB]; TAYLOR MARTYN [GB]) 6 October 2005 (2005-10-06) the whole document -----	1-5
A	EP 1 850 008 A1 (TAIHO KOGYO CO LTD [JP]) 31 October 2007 (2007-10-31) the whole document -----	1-5

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See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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