

Title (en)

DRAG VACUUM PUMP WITH AT LEAST ONE HELICAL STAGE AT THE DISCHARGE END

Publication

EP 0408792 B1 19930929 (DE)

Application

EP 89113318 A 19890720

Priority

EP 89113318 A 19890720

Abstract (en)

[origin: JPH0357898A] PURPOSE: To secure discharge of dust deposited by performing heavy duty cleaning of a limited stage in the neighbourhood of an outlet and to avoid a return flow of oil by providing a cleaning gas inlet extending along the overall periphery of a gas delivery passage. CONSTITUTION: A capacity extended part 66 is formed by removing a ring 52 and a lower edge part of a screw structural member 56, and an inflow opening 67 extended thereby extends along the overall periphery of a gas delivery passage 20. Thereafter, gas molecules delivered while a friction pump 1 furnished with a cleaning gas inlet 13 is driven move in an arrow 68 direction in the ring gas delivery passage 20, cleaning gas enters a ring collecting passage 62 through a hole 61 and it is distributed along the overall periphery of the pump. Thereafter, cleaning gas passes a passing clearance 65 at high speed and reaches the inside of the capacity extended part 66, and hereby cleaning gas partly becomes still. Thereafter, molecules entrained by cleaning gas are delivered to an outlet 14, a transfer part to an end surface of the inlet side of a ring 53 of a groove bottom 69, that is, an edge 72 is constituted in an acute angle as much as possible, and desired work is promoted.

IPC 1-7

F04D 19/04; **F04D 29/68**

IPC 8 full level

F04D 19/04 (2006.01); **F04D 29/68** (2006.01)

CPC (source: EP US)

F04D 19/044 (2013.01 - EP US); **F04D 29/681** (2013.01 - EP US); **F05B 2250/25** (2013.01 - EP US); **F05D 2260/607** (2013.01 - EP); **Y10S 415/914** (2013.01 - EP US)

Cited by

US5553998A; DE19632874A1; DE19933332A1; DE19804768B4; US6030189A; EP0731278A1; EP0985828A1; FR2783883A1; US6193461B1; US6702544B1; WO9323672A1; WO9715760A1; WO0046508A1; US6224326B1

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