

Title (en)

DUAL-CHAMBER DUAL-ACTION AIR PUMP AND GLASS-WIPING ROBOT HAVING THE AIR PUMP

Title (de)

LUFTPUMPE MIT ZWEI KAMMERN UND MIT DOPPELWIRKUNG SOWIE GLASWISCHROBTER MIT DER LUFTPUMPE

Title (fr)

POMPE À AIR À DEUX CHAMBRES ET À DOUBLE ACTION, ET ROBOT ESSUIE-VITRE POURVU DE CETTE POMPE À AIR

Publication

**EP 2966303 A1 20160113 (EN)**

Application

**EP 14760747 A 20140306**

Priority

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Abstract (en)

A dual-chamber dual-action air pump and a glass-wiping robot having the air pump. The air pump comprises a cylinder and, connected to the cylinder, a drive apparatus and a piston. The drive apparatus drives the piston via a transmission apparatus to perform reciprocating movement in the cylinder. A sealing element fixedly connected to the piston rod is arranged within the cylinder. The sealing element partitions the cylinder into a first chamber (A1) and a second chamber (A2). Both the first chamber and the second chamber respectively are provided with a first one-way valve and a second one-way valve. When the piston rod drives the sealing element to perform reciprocating movement, the first chamber and the second chamber simultaneously inhale air and exhaust air. The dual-chamber dual-action air pump is compact in structure, and provides doubled air flow rate and doubled efficiency. The glass-wiping robot having the air pump provides a suction cup with a vacuum suction force via the air pump, and allows for great air evacuation to be ensured for the suction cups even if the suction cup comes in contact with a crack or bump on a glass surface, thus reducing the risks of the damage of the glass-wiping robot due to falling, and eliminating possible security hazards.

IPC 8 full level

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CPC (source: EP US)

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