

Title (en)
RECIPROCATING VOLUMETRIC COMPRESSOR STRUCTURE

Title (de)
VOLUMETRISCHE KOLBENVERDICHTERSTRUKTUR

Title (fr)
STRUCTURE DE COMPRESSEUR VOLUMÉTRIQUE À MOUVEMENT ALTERNATIF

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Abstract (en)
The present invention relates to a reciprocating volumetric compressor structure (10) comprising:- two opposite pistons (11, 12) fixed coaxially to each other to a same rigid translating body (13);- two cylinders (14, 15), one for each of the pistons (11, 12);- a connecting rod (16), hinged to the rigid translating body (13) with first hinge means (17) defining a first rotation axis (X1);- an electric motor (18) with a drive shaft (19) having a second rotation axis (X2);- an eccentric body (20) fixed to the drive shaft (19) and rotatably constrained to the connecting rod (16) with second hinge means (21) defining a third rotation axis (X3);- two heads (22, 23), each configured and positioned so as to close a corresponding cylinder (14, 15), each head (22, 23) having suction and delivery one-way valve means (24, 25);- two suction and compression chambers (26, 27), each defined within a cylinder (14, 15), between a corresponding piston (11, 12) and a facing head (22, 23);- at least one guide and sliding ring (31, 32) for each piston (11, 12);- a casing (28), on which said cylinders (14, 15) and said electric motor (18) are fixed, within the casing (28) being positioned said rigid translating body (13), said connecting rod (16) and said eccentric body (20).One of said pistons (11, 12) comprises at least three guide and sliding rings (32, 32a, 32b).

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