

Title (en)  
RECIPROCATING PISTON ENGINE

Title (de)  
HUBKOLBENMASCHINE

Title (fr)  
MACHINE A PISTON ELEVATEUR

Publication  
**EP 1611354 A1 20060104 (DE)**

Application  
**EP 04710821 A 20040213**

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Abstract (en)  
[origin: WO2004083638A1] The invention relates to a reciprocating piston engine comprising at least one membrane (1) produced from an elastomeric material and an oscillating reciprocating drive that acts on a center zone (3) of the membrane (1). Between the center zone (3) of the membrane and its circumferential edge zone (5) a membrane zone (M) is provided that is deformed during the oscillating pumping movements. The inventive reciprocating piston engine is inter alia characterized in that the work and/or auxiliary membrane (1), in its deformable membrane zone, is provided with at least two cantilever-type annular zones (7, 8) that merge into each other in a reduction of cross-section (9) of the membrane (1) and in that the membrane cross-section, starting from the reduction of cross-section (9), enlarges in the annular zones (7, 8). The membrane of the inventive reciprocating piston engine is very durable and functions with little noise.

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