

Title (en)  
NEW RECIPROCATING MACHINES AND OTHER DEVICES

Title (de)  
NEUE HUBKOLBENMASCHINEN UND ANDERE VORRICHTUNGEN

Title (fr)  
NOUVELLES MACHINES À MOUVEMENT DE VA-ET-VIENT ET AUTRES DISPOSITIFS

Publication  
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Application  
**EP 08742974 A 20080416**

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Abstract (en)  
[origin: WO2009145745A1] The disclosure relates to reciprocating fluid working devices including internal combustion engines, compressors and pumps. A number of arrangements for pistons and cylinders of unconventional configuration are described, mostly intended for use in IC engines operating without cooling. Included are toroidal combustion or working chambers, some with fluid flow through the core of the toroid, a single piston reciprocating between a pair of working chambers, tensile valve actuation, tensile links between piston and crankshaft, energy absorbing piston - crank links, crankshafts supported on gas bearings, cylinders rotating in housings, injectors having components which reciprocate or rotate during fuel delivery. In some embodiments pistons may rotate while reciprocating. High temperature exhaust emissions systems are described, including those containing filamentary material, as are procedures for reducing emissions during cold start by means of valves at reaction volume exit. Also disclosed are improved vehicles, aircraft, marine craft, transmissions and exhaust emission systems suited to the engines of the invention.

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Citation (search report)  
See references of WO 2009145745A1

Citation (examination)  
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