

Title (en)

Reciprocating external-combustion engine and method of operating the same.

Title (de)

Hubkolbenmaschine mit äusserer Verbrennung sowie Verfahren zu deren Betrieb.

Title (fr)

Machine motrice à combustion externe à piston alternatif et méthode pour faire fonctionner cette machine.

Publication

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Application

EP 80304648 A 19801219

Priority

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- US 21586780 A 19801212

Abstract (en)

A reciprocating external combustion engine wherein energy is transferred to air acting as a working gas by injection into the air of liquid water at a high temperature and pressure. The liquid water is injected either directly into the cylinder or into a preliminary mixing chamber. The water acts as a heat-transfer medium for heating the air. Spontaneous vaporization of the liquid water on injection increases the pressure of the air which drives the piston before being exhausted. The exhaust water is recovered and recycled. The cylinder is scavenged and refilled with a fresh charge of air.

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CPC (source: EP)

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Cited by

FR3114349A1; CN100412346C; GB2376507A; GB2283543A; US5771693A; FR2952404A1; FR2952405A1; EP0896140A1; CN109869194A; US7506509B2; US6564551B1; USRE37603E; WO2005071232A1; WO2022064152A1; WO0079104A1; WO0053898A1; WO2004022962A1; WO2007003929A1; WO9324754A3; WO9816741A1; US6206660B1

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