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(54) **CYLINDER AND PISTON ASSEMBLIES FOR OPPOSED PISTON ENGINES**

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F01P 1/04 (2006.01)
F01P 1/06 (2006.01)

(52) **U.S. Cl.** **123/41.35**; 123/193.4

(58) **Field of Classification Search** 123/41.35, 123/41.34, 51 AA, 67, 197.4, 193.4; 92/179, 92/187

See application file for complete search history.

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(57) **ABSTRACT**

In an opposed piston engine, a pair of pistons are disposed in opposition in the bore of a cylinder. The cylinder includes first liquid coolant grooves having a first cooling capacity to cool a portion of the cylinder extending from a central portion toward an exhaust port, and second liquid coolant grooves having a second cooling capacity, less than the first cooling capacity, to cool a portion of the cylinder extending from the central portion toward an inlet port. Each piston includes a cylindrical skirt with a crown and an open end opposite the crown, a piston rod with a bore, a first end attached to a back surface of the crown, and a second end extending through the open end of the skirt, a radial array of liquid coolant flow passages in communication with the bore and disposed between the first end and the back surface of the crown, and a single wristpin retained on the second end section of the piston rod and positioned externally to the piston.

20 Claims, 20 Drawing Sheets

