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Lemke et al.

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(54) **OPPOSED PISTON ENGINE**
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Joey K. Parker, Stuart R. Bell, David M. Davis; *An Opposed Piston Diesel Engine*, ICE vol. 18, New Developments in Off-Highway Engines, ASME 1992, pp. 17-24.

Related U.S. Application Data

(Continued)

(63) Continuation-in-part of application No. PCT/US2005/020553, filed on Jun. 10, 2005, and a continuation-in-part of application No. 10/865,707, filed on Jun. 10, 2004, now Pat. No. 7,156,056.

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(51) **Int. Cl.**
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(57) **ABSTRACT**

(52) **U.S. Cl.** **123/41.35**; 123/41.34; 123/51 BA
(58) **Field of Classification Search** 123/41.34, 123/41.35, 51 AA, 51 BA, 67, 197.4, 41.38, 123/53.2

A two-cycle, opposed piston engine with side-mounted crankshafts and cylinders isolated from mechanical stresses of the engine includes tailored cooling of cylinders and symmetrical cooling of the interior surfaces of piston crowns. Each opposed piston includes a compliant member that permits movement of an axially-centered rod mounted in the piston in order to maintain axial alignment with the bore of a cylinder in which the piston is disposed during engine operation. A single wristpin is disposed externally of the piston to connect the piston with connecting rods that run between the piston and the crankshafts.

See application file for complete search history.

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44 Claims, 20 Drawing Sheets

