

Title (en)
STRUCTURAL HEAT EXCHANGER

Title (de)
STRUKTURELLER WÄRMETAUSCHER

Title (fr)
ÉCHANGEUR DE CHALEUR STRUCTUREL

Publication
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Application
EP 17847645 A 20170901

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Abstract (en)
[origin: US2018058770A1] In some embodiments, a structural heat exchanger is presented that utilizes liquid fuel as a coolant as it travels through the perimeter of a region (e.g., a chamber) of an engine. The shapes of the coolant channels of the heat exchanger may be configured to change pitch angles as it travels to the top of the region, to account for areas of the region that may demand higher cooling properties. In some embodiments, the fuel diverter that allows initial passage of the fuel through the coolant channels may be configured to drive passage of the fluid up through the coolant channels with uniform pressure, even as the volume of fluid decreases the farther the fluid travels from the initial entry point. In some embodiments, this may be implemented as a fuel diverter shaped in an annulus with a gradually decreasing radial cross-section.

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Designated contracting state (EPC)
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