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Willis et al.

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(54) **HEADER FOR A HEAT EXCHANGER**

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See application file for complete search history.

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(57) **ABSTRACT**

Disclosed herein is a header for a heat exchanger that has an inflow side, an outflow side, a bypass port therebetween, and a pressure-sensitive flapper valve proximal the bypass port. As pressure increases at the inflow side of the header, the flapper valve opens proportionally, and, as pressure decreases at the inflow side, the flapper valve closes proportionally. The flapper valve is preferably included as part of a service cartridge assembly to facilitate easy repair and/or replacement of the flapper valve. In some embodiments of the invention, a differential pressure is measured between the inflow and outflow sides, and activation of the heat exchanger is initiated in response to the differential pressure having exceeded a set point.

22 Claims, 15 Drawing Sheets

