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(54) **AUXILIARY OIL SYSTEM FOR NEGATIVE GRAVITY EVENT**

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See application file for complete search history.

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(57) **ABSTRACT**

A lubrication system includes a bearing compartment. A main reservoir is fluidly connected to the bearing compartment by a main supply passage. A main pump is arranged in the main supply passage configured to provide fluid from the main reservoir to the bearing compartment during a positive gravity condition. A secondary supply passage fluidly connects the main reservoir to at least one segment of the main supply passage, thereby providing fluid from the main reservoir to the bearing compartment during a negative gravity condition. A method of supplying a bearing compartment with fluid includes pumping a fluid from a main reservoir to a bearing compartment through a main supply passage during a positive gravity condition, and providing fluid from the main reservoir to the bearing compartment through a secondary supply passage, fluidly connected to at least one segment of the main supply passage, in response to a negative gravity condition.

10 Claims, 8 Drawing Sheets

