

Title (en)
APPARATUS COMPRISING A HYDRAULIC CIRCUIT

Title (de)
VORRICHTUNG MIT EINEM HYDRAULISCHEN KREISLAUF

Title (fr)
APPAREIL COMPRENANT UN CIRCUIT HYDRAULIQUE

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Application
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Abstract (en)
An apparatus comprising prime mover and a plurality of hydraulic actuators, a hydraulic machine having a rotatable shaft in driven engagement with the prime mover and comprising a plurality of working chambers having a volume which varies cyclically with rotation of the rotatable shaft, a hydraulic circuit extending between a group of one or more working chambers of the hydraulic machine and one or more of the hydraulic actuators, each working chamber of the hydraulic machine comprising a low-pressure valve which regulates the flow of hydraulic fluid between the working chamber and a low-pressure manifold and a high-pressure valve which regulates the flow of hydraulic fluid between the working chamber and a high-pressure manifold, the hydraulic machine being configured to actively control at least the low-pressure valves of the group of one or more working chambers to select the net displacement of hydraulic fluid by each working chamber on each cycle of working chamber volume, and thereby the net displacement of hydraulic fluid by the group of one or more working chambers, responsive to a demand signal, the apparatus comprising a controller configured to calculate the demand signal in response to a measured property of the hydraulic circuit or one or more actuators, wherein the demand signal is quantised, having one of a plurality of discrete values.

IPC 8 full level
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Citation (search report)
• [Y] WO 2013130768 A1 20130906 - EATON CORP [US]
• [Y] WO 2017144875 A1 20170831 - QUOCEANT LTD [GB]

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