

Title (en)

HYDRAULIC UNIT WITH PARALLEL PUMPS LINKED TO A SERVOMOTOR AND USE THEREOF

Title (de)

HYDRAULISCHE EINHEIT MIT PARALLELEN, MIT EINEM SERVOMOTOR VERBUNDENEN PUMPEN UND VERWENDUNG DAVON

Title (fr)

UNITÉ HYDRAULIQUE AVEC POMPES PARALLÈLES RELIÉES À UN SERVOMOTEUR ET SON UTILISATION

Publication

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Application

EP 19884085 A 20191029

Priority

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- BR 2019000037 W 20191029

Abstract (en)

[origin: EP3882471A1] The invention comprises a smart system that provides a machine or item of equipment with just the quantity of oil that will be used to perform one particular movement or more than one movement, thereby dispensing with supplying excess oil which ultimately is later returned to the tank in a venting system. The unit in question contains a ball screw (7), which is driven by a servomotor(6), and both have the function of raising and lowering two hydraulic sleeves (5E and 5D), of two hydraulic piston pumps (1 and 2), mounted in parallel and separately from one another, the function of which is to draw hydraulic oil from an oil reservoir(18) and to pump this pressurized oil into one, or more hydraulic pressure accumulators (14E and 14D), implementing this pumping continuously with alternating up- and-down movements, until the hydraulic pressure accumulator (14E and 14D) is completely full and, when it is full, a pressure sensor(25) will electronically control the halting of the servomotor(6), the latter being reactivated only when a hydraulic actuator of the machine or item of equipment that is using the present invention moves in order to perform a task, the servomotor(6) thus controlling the pumping and supply of oil to the system, but only in the form of the volume required to be replaced in the hydraulic pressure accumulator (14E and 14D), thereby giving rise to a large saving in terms of electric energy, using a low volume of oil, reducing noise and lowering the temperature of the oil.

IPC 8 full level

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Citation (search report)

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- See also references of WO 2020097700A1

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