

Title (en)

PRESSURE-ACCUMULATOR-FREE HYDRAULIC DRIVE ARRANGEMENT FOR AND COMPRISING A CONSUMER, IN PARTICULAR FOR PRESSES, AND METHOD FOR OPERATING A PRESSURE-ACCUMULATOR-FREE HYDRAULIC DRIVE ARRANGEMENT OF SAID TYPE

Title (de)

DRUCKSPEICHERLOSE HYDRAULISCHE ANTRIEBSANORDNUNG FÜR UND MIT EINEM VERBRAUCHER, INSBESONDERE FÜR PRESSEN SOWIE VERFAHREN ZUM BETREIBEN EINER SOLCHEN DRUCKSPEICHERLOSEN HYDRAULISCHEN ANTRIEBSANORDNUNG

Title (fr)

SYSTÈME D'ENTRAÎNEMENT HYDRAULIQUE SANS ACCUMULATEUR DE PRESSION POUR UN CONSOMMATEUR ET COMPRENANT UN CONSOMMATEUR, EN PARTICULIER POUR DES PRESSES, ET PROCÉDÉ PERMETTANT DE FAIRE FONCTIONNER UN TEL SYSTÈME D'ENTRAÎNEMENT HYDRAULIQUE SANS ACCUMULATEUR DE PRESSION

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Abstract (en)

[origin: WO2012110259A1] A pressure-accumulator-free hydraulic drive arrangement (10) for and comprising a consumer, in particular for presses, has firstly a double-acting piston/cylinder unit (20) which comprises a working piston (21), a piston rod (22) and a cylinder chamber (23). The reversibly movable working piston (21) divides the cylinder chamber into a first piston chamber (23A), and a second piston chamber (23B) which supplements the first piston chamber, at one side, and an annular chamber (23C), which surrounds the piston rod (22), at the other side, and the drive arrangement furthermore comprises a first pressure line (D1) which supplies a pressure medium to the first piston chamber (23A), a second pressure line (D2) which supplies pressure medium to the second piston chamber (23B), and a third pressure line (D3) which supplies pressure medium to the annular chamber (23C). At least one pump arrangement (30) comprises a first and a second pump (31, 32), which can be driven variably in terms of rotational speed and/or rotational direction, and a drive (33), which drives the two pumps and which is variable in terms of rotational speed and/or rotational direction. A tank (40) in which the pressure medium can be stored is or can be hydraulically connected to the piston/cylinder unit (20) and to the pump arrangement (30). The second pump (32) is or can be connected at one side to the second piston chamber (23B) via the second pressure line (D2) and at the other side to the annular chamber (23C) via the third pressure line (D3), whereas the first pump (31) is or can be connected to the first piston chamber (23A) via the first pressure line (D1).

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US11384777B2; EP3378581B1

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