

Title (en)  
HYDRAULIC FAN DRIVE

Title (de)  
HYDRAULISCHER LÜFTERANTRIEB

Title (fr)  
ENTRAÎNEMENT HYDRAULIQUE DE VENTILATEUR

Publication  
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Application  
**EP 11718903 A 20110303**

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Abstract (en)  
[origin: WO2011120486A2] The invention proceeds from a hydraulic fan drive which has a hydraulic pump which can have its swept volume adjusted and is assigned a pressure control valve arrangement for regulating a pump pressure by adjustment of the swept volume, a hydraulic motor for driving an impeller wheel, and a pressure line which is connected to a pressure input of the hydraulic motor and into which pressure medium can be conveyed by the hydraulic pump. Fan drives of this type can be used, for example, in construction machines, agricultural and forestry machines, in conveying technology, in lorries and omnibuses and in rail vehicles. The invention is based on the problem of developing a hydraulic fan drive of this type in such a way that it can be used for the recuperation of energy. This problem is solved by the fact that a hydraulic accumulator is connected to the pressure line and the hydraulic motor can have its displacement adjusted. In the case of a hydraulic fan drive according to the invention, energy can be buffer-stored on account of the hydraulic accumulator which is connected to the pressure line by feeding in pressure medium beyond the amount which is displaced by the hydraulic motor, which energy becomes free in other operations on the machine, for example during a braking operation or during the lowering of a load. The pressure changes in the pressure line which are associated with the buffer storage and the output of energy can be compensated for by a change in the displacement of the hydraulic motor in such a way that the torque which is output by the hydraulic motor corresponds to the desired fan speed.

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Cited by  
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