

Title (en)

METHOD FOR DETERMINING THE HYDRAULIC OPERATING POINT OF A PUMP ASSEMBLY

Title (de)

VERFAHREN ZUR BESTIMMUNG DES HYDRAULISCHEN ARBEITSPUNKTES EINES PUMPENAGGREGATS

Title (fr)

PROCÉDÉ DE DÉTERMINATION DU POINT DE FONCTIONNEMENT HYDRAULIQUE D'UN GROUPE MOTOPOMPE

Publication

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Application

**EP 15719612 A 20150326**

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- EP 2015000642 W 20150326

Abstract (en)

[origin: WO2015144310A1] The invention relates to a method for determining a first hydraulic variable (Q) of a pump assembly (1), which is operated at a predefinable rotation speed (n<sub>o</sub>), from a mechanical or electrical variable (M<sub>act</sub>, P<sub>el</sub>, n<sub>act</sub>) by evaluating a combination of the hydraulic variable (Q) with the mechanical or electrical variable (M<sub>act</sub>, P<sub>el</sub>, n<sub>act</sub>). In this case, an actuating variable (M<sub>target</sub>, n<sub>target</sub>) of the pump assembly (1) is acted on by a periodic excitation signal (f<sub>A</sub>, n(t), f<sub>A</sub>, H(t)) of a specific frequency (f) in such a way that a second hydraulic variable (H, Δp) is modulated. The current value of the first hydraulic variable (Q) is then determined from the mechanical or electrical variable (M<sub>act</sub>(t), P<sub>el</sub>(t), n<sub>act</sub>(t)) as a system response (X(t)) to the excitation signal (f<sub>A</sub>, n(t), f<sub>A</sub>, H(t)) using the combination. The invention further relates to a pump electronics system and to a pump assembly which are designed to carry out the method.

IPC 8 full level

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Citation (search report)

See references of WO 2015144310A1

Cited by

EP3816451A1; EP4279745A1; LU502112B1

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