Title (en)
SYSTEM AND METHOD FOR MONITORING AND CONTROL OF CAVITATION IN POSITIVE DISPLACEMENT PUMPS

Title (de)
SYSTEM UND VERFAHREN ZUR ÜBERWACHUNG UND STEUERUNG VON HOHLRAUMBILDUNGEN IN VERDRÄNGERPUMPEN

Title (fr)
SYSTÈME ET PROCÉDÉ POUR SURVEILLER ET COMMANDER LA CAVITATION DANS DES POMPES VOLUMÉTRIQUES

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Application
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Abstract (en)

[origin: WO2013147761A2] A system and method are disclosed for monitoring and controlling a positive displacement pump using readings obtained from a plurality of pressure sensors. The pressure sensors may be mounted at the suction, discharge and interstage regions of the pump. Signals from the pressure sensors are compared to obtain a ratio that is used to predict whether a cavitation condition exists within the pump. The ratio can be compared to user provided limits to change an operating characteristic of the pump to reduce predicted cavitation. The pump may be stopped, or pump speed changed, when the ratio is less than a predetermined value. In some embodiments, historical information regarding the ratio may be used to obtain standard deviation information which may then be used to predict whether gas bubbles are passing through the pump. Other embodiments are described and claimed.

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