

Title (en)

ANTI-SURGE CONTROL OF A SUBSEA COMPRESSOR

Title (de)

ÜBERSPANNUNGSSCHUTZREGELUNG EINES UNTERWASSERVERDICHTERS

Title (fr)

COMMANDE ANTI-EMBALLLEMENT D'UN COMPRESSEUR SOUS-MARIN

Publication

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Application

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Abstract (en)

[origin: WO2015158734A1] A subsea compression system and method is disclosed, the compression system arranged to be switched from normal operation into an anti-surge operational mode. The compression system comprises a compressor rotor (3) supported for contact-free rotation by active magnetic bearings (20, 21, 22), an active magnetic bearing (AMB) controller (24) to maintain the position of the compressor rotor (3) relative to non-rotating parts of the compressor, an anti-surge valve (25) normally closed in a recycle line (26) setting a compressor outlet (10) in flow connection with a compressor inlet (9) in an open state of the anti-surge valve, wherein the active magnetic bearing controller (24) is operatively connected to the anti-surge valve (25). The method comprises determining, using AMB control data, a value representing a force acting on the compressor rotor from the process load, comparing the force representing value to a threshold value indicative of a surge condition, and in response to the force representing value exceeding the threshold value switching the anti-surge valve into the open state.

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