Title (en)

Method and apparatus for the regulation of a turbo compressor for preventing surge.

Title (de)

Einrichtung und Verfahren zum Regeln eines Turbokompressors zur Verhinderung des Pumpens.

Title (fr)

Procédé et dispositif de réglage d'un turbocompresseur pour empêcher le pompage.

Publication

EP 0223207 A2 19870527 (DE)

Application

EP 86115791 A 19861113

Priority

DE 3540284 A 19851113

Abstract (en)

[origin: EP0223207B1] 1. An apparatus for controlling a turbocompressor to prevent surge, having sensors for determining the actual-value of one or more operating variables characteristic of the working point of the compressor, in particular final pressure and flow rate, sensors with predetermined desired-value characteristics of at least one blow-off curve in the compressor performance graph, a controller which, in response to the actual value and desired value, generates a continuous control signal for the opening of a blow-off valve and which has at least one proportional part and an integral part and, optionally, a differential part, and a device generating a correction signal for the rapid of the blow-off valve when the blow-off curve or a safety curve in the performance graph is exceeded, characterised in that the correction signal can be fed to the integral part (10b) of the controller (10) as an input signal or as a control signal affecting the resetting time of the integral part.

Abstract (de)

Bei der Pumpgrenzregelung eines Turbokompressors mit einem Regler (10), der anhand der Lage des Arbeitspunktes relativ zu einer im Kennfeld vorgegebenen Abblaselinie das progressive Öffnen oder Schließen eines Abblaseventils (19) steuert, wird bei Annäherung an die Pumpgrenze ein Schnellöffnen des Abblaseventils dadurch bewirkt, daß der Integralteil (10b) des Reglers mit einem Korrektursignal beaufschlagt wird.

IPC 1-7

F04D 27/02

IPC 8 full level

F04D 27/02 (2006.01)

CPC (source: EP US)

F04D 27/0207 (2013.01 - EP US)

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DOCDB simple family (publication)

EP 0223207 A2 19870527; **EP 0223207 A3 19880113**; **EP 0223207 B1 19901003**; DE 3540284 A1 19870514; DE 3674723 D1 19901108; JP S62247200 A 19871028; US 4968215 A 19901106

DOCDB simple family (application)

EP 86115791 A 19861113; DE 3540284 A 19851113; DE 3674723 T 19861113; JP 26682986 A 19861111; US 20549688 A 19880606