

Title (en)
METHOD IN A COMPRESSED AIR SYSTEM AND RELATED ARRANGEMENT

Title (de)
VERFAHREN IN EINEM DRUCKLUFTSYSTEM UND ENTSPRECHENDE VORRICHTUNG

Title (fr)
PROCÉDÉ DANS UN SYSTÈME À AIR COMPRIMÉ ET ENSEMBLE CORRESPONDANT

Publication
EP 3409953 B1 20201223 (EN)

Application
EP 17173684 A 20170531

Priority
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Abstract (en)
[origin: EP3409953A1] A method of determining leakage rate of a compressed air system having a pressure sensor and a screw compressor driven by a frequency converter. The method comprises setting a first pressure limit and a second pressure limit, increasing the pressure of the compressed air system with the screw compressor until the pressure of the compressed air system reaches the second pressure limit. During the increase of the pressure the rotational speed of the screw compressor is estimated and the system pressure is measured. The volume of the compressed air system is calculated from the determined rotational speed estimates and measured system pressures together with the stored timestamps and temperatures and pressures in the system at start and end of increase of the pressure and known constants. Further, the pressure is let to decrease to the first pressure limit, and the system pressure is measured at multiple of time instants during the decrease of the pressure. An exponential curve is fitted on the pressure measurement data and the pressure decay coefficient is used as a measure indicating the leaking condition of the compressed air system.

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CPC (source: EP)
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Cited by
CN116163943A; CN110895017A; BE1026852B1; BE1026836B1; CN114072612A; WO2020136475A1; WO2020136477A1

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