

Title (en)

Turbo compressor having a surge suppressing arrangement.

Title (de)

Turbokompressor mit einer Einrichtung zum Verhindern des Pumpens.

Title (fr)

Turbo-compresseur à dispositif pour supprimer le pompage.

Publication

EP 0044564 A1 19820127 (EN)

Application

EP 81105752 A 19810721

Priority

JP 9935180 A 19800722

Abstract (en)

An annular vane (20) having a truncated hyperboloid configuration is disposed in a portion of a turbo compressor induction passage (22) having a similar curvature. The vane (20) defines inner and an outer sub-passages (28,30) the cross sectional area of the inlets (32,36) of which may be varied by moving the vane axially with respect to the compressor wheel while the outlets (34,38) of the two passages remain substantially unchanged. As the surge limit is approached the vane is moved away from the compressor wheel to increase the flow passing through the outer passage (30) while reducing that which passes through the inner one (28). The resulting increased flow velocity through the outer sub-passage (30) reduces the angle of incidence of the air impinging on the compressor wheel blades (18) suppressing the surge tendency.

IPC 1-7

F04D 27/02; F04D 29/46

IPC 8 full level

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CPC (source: EP)

F04D 27/0246 (2013.01); **F04D 29/4213** (2013.01); **F04D 29/464** (2013.01); **F05D 2250/51** (2013.01)

Citation (search report)

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