

Title (en)

BLADE CASCADE FOR A FLOW ENGINE AND FLOW ENGINE COMPRISING SAID BLADE CASCADE

Title (de)

SCHAUFELGITTER FÜR EINE STRÖMUNGSMASCHINE UND STRÖMUNGSMASCHINE MIT EINEM SOLCHEN SCHAUFELGITTER

Title (fr)

GRILLE D'AUBES POUR UNE TURBOMACHINE ET TURBOMACHINE COMPORTANT UNE TELLE GRILLE

Publication

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Application

**EP 09771999 A 20090624**

Priority

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Abstract (en)

[origin: WO201000229A2] The invention relates to a blade cascade for a flow engine, especially a steam turbine, comprising a plurality of profiled blades, especially profiled rotor blades (1), having an intake side (SS), a pressure side (DS), a median line (Sk) and a chord length (s) between a blade leading edge and a blade trailing edge. The invention is characterized in that a quotient of the chord length (s) for a maximum height (fSS) of the intake side (SS) is between 0.53 and 0.55, a maximum height (fDS) of the pressure side (DS) is between 0.19 and 0.21, a maximum height (fSk) of the median line (Sk) is between 0.36 and 0.38, a diameter (Dmax / s) of a maximum circle extending between the intake and the pressure side is between 0.34 and 0.36, its distance between centers (xDmax / s) is between 0.37 and 0.39, its height in the center (fxDmax / s) is between 0.35 and 0.37, a diameter (De / s) of its leading edge circle (3) is between 0.025 and 0.045, a diameter (Da / s) of a trailing edge circle (4) is between 0.01 and 0.02, a radius of curvature of the intake side (SS) at a distance (XRkSS0.1) of 0.1 times the chord length (s) is between 0.39 and 0.41, a radius of curvature of the intake side (SS) at a distance (XRkSS0.75) of 0.75 times the chord length (s) is between 0.83 and 0.85, a radius of curvature of the pressure side (DS) at a distance (XRkDS0.15) of 0.15 times the chord length (s) is between 0.74 and 0.76, and/or a radius of curvature of the pressure side (DS) at a distance (XRkDS0.80) of 0.80 times the chord length (s) is between 0.55 and 0.57.

IPC 8 full level

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