

Title (en)
AXIAL FLOW TURBINE

Title (de)
AXIALSTROMTURBINE

Title (fr)
TURBINE À FLUX AXIAL

Publication
EP 3258063 A4 20190403 (EN)

Application
EP 16749489 A 20160212

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Abstract (en)
[origin: EP3258063A1] The present invention relates to an axial flow turbine, comprising: a rotor mounting part; a housing having a fluid supply part surrounding the rotor mounting part; a rotor which is installed at a rotation shaft installed in the housing and has a plurality of blades installed in a circumferential direction; and a plurality of injection nozzles, installed in the fluid supply part surrounding the rotor mounting part, for spraying a high-pressure fluid toward the blades, wherein the fluid collision surface of the blades installed at the rotor is formed to be inclined at an angle in the rotational direction of the rotor with respect to the normal axis of the rotation center axis, and the injection nozzles formed in the fluid supply part are installed at an angle parallel to the normal direction of the fluid collision surface of the blades. Due to the aforementioned configuration, the present invention provides the effect of maximizing the rotation rate of a turbine while smoothing fluid flow by optimizing the angle of the fluid collision surface of the blades.

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Citation (search report)
• [X] US 2014255180 A1 20140911 - CHOI HYUK SUN [KR]
• [A] EP 2703639 A2 20140305 - BAE MYUNG-SOON [KR]
• [A] US 1438488 A 19221212 - GREY JOHN F
• See references of WO 2016129949A1

Cited by
RU2728310C2

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