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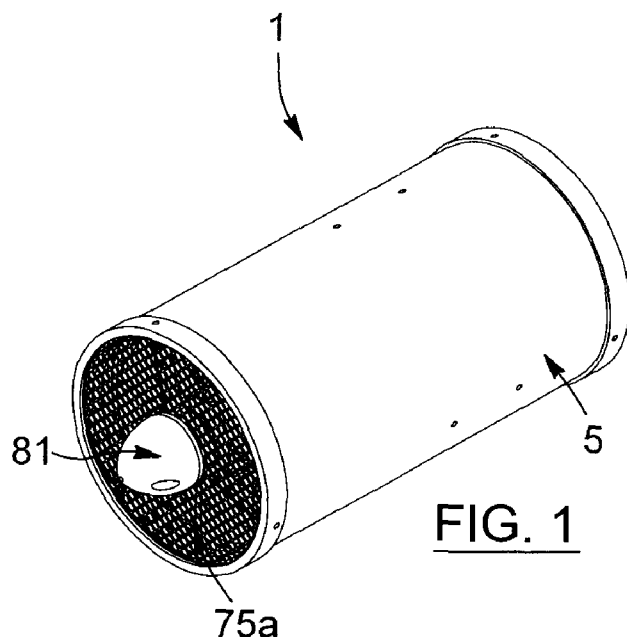
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(54) Title: TURBINE ASSEMBLY, AND KIT WITH COMPONENTS FOR ASSEMBLING THE SAME



(57) Abstract: A turbine assembly (1) for generating electricity from kinetic energy of a moving fluid flow (3). The turbine assembly (1) includes an elongated casing (5) defining a fluid channel (7) through which the fluid flow (5) is allowed to travel, as well as an inlet (9) and an outlet (11) for respectively receiving and releasing the fluid flow (3) to and from the fluid channel (7). The assembly (1) also includes a main rotor (13) contained within the casing (5) and intersecting the fluid channel (7), the main rotor (13) being rotatably moveable with respect to the casing (5) via a pivoting component (15). The main rotor (13) has a closed-loop arrangement (17) provided with a plurality of rotor vanes (19) each defining a neighbouring closed-loop rotor passage (21), the main rotor (13) being rotatably driven via the passage of fluid flow (3) through its closed-loop arrangement (21), and the closed-loop arrangement (21) being further configured for imparting a forced rotational movement to the fluid flow (3) exiting from the main rotor (13). The assembly also includes a main generator (23) being operatively connectable to the main rotor (13) and being driven by a rotation of the main rotor (13), in order to generate electricity, the main generator (23) being contained within the casing (5) and being positioned within the casing (5) via a supporting component (25) so as to be placed in a vortex region (27) defined by the forced rotational movement of the fluid flow (3) exiting the main rotor (13).