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(54) SINGLE-FRAME TYPE IMPELLER OF WIND TURBINE

(57) The present invention relates to the technical field of wind power generating equipment, in particular to a single-frame impeller of a wind turbine generator set. Influenced by the structure, materials and the like, a horizontal-shaft wind turbine generator set in the prior art has problems of low wind energy utilization rate, relatively high design requirements, relatively large volume and weight, difficulty in maintenance and repairing, likeliness in over-speed flying, and the like. The single-frame impeller of the wind turbine generator set includes a wind wheel frame, a blade adjusting device, a supporting base and oblique supporting rods, wherein the blade adjusting device and the supporting base are connected and assembled to the front end of a generator main shaft, the wind wheel frame and the supporting base are connected through the oblique supporting rods, and blades encircle the blade adjusting device and are assembled in the wind wheel frame through shafts; and the blade adjusting device is provided with a closed adjusting chamber, and a gear-type, a gear-rack-type or a connecting-rod-type combined adjusting mechanism is assembled in the adjusting chamber. The present invention changes a connecting way of the blades and increases the quantity of the blades, thereby increasing the wind energy utilization efficiency, increasing the overall output power, decreasing the failure rate and improving the safety, reliability

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and economical efficiency.

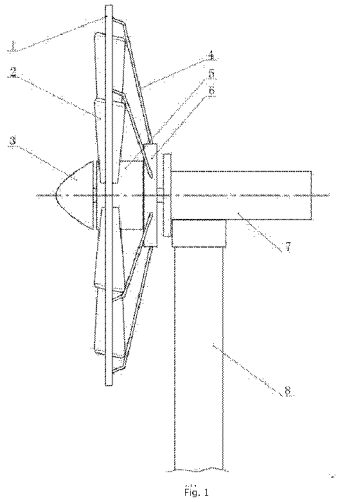

Fig. 1