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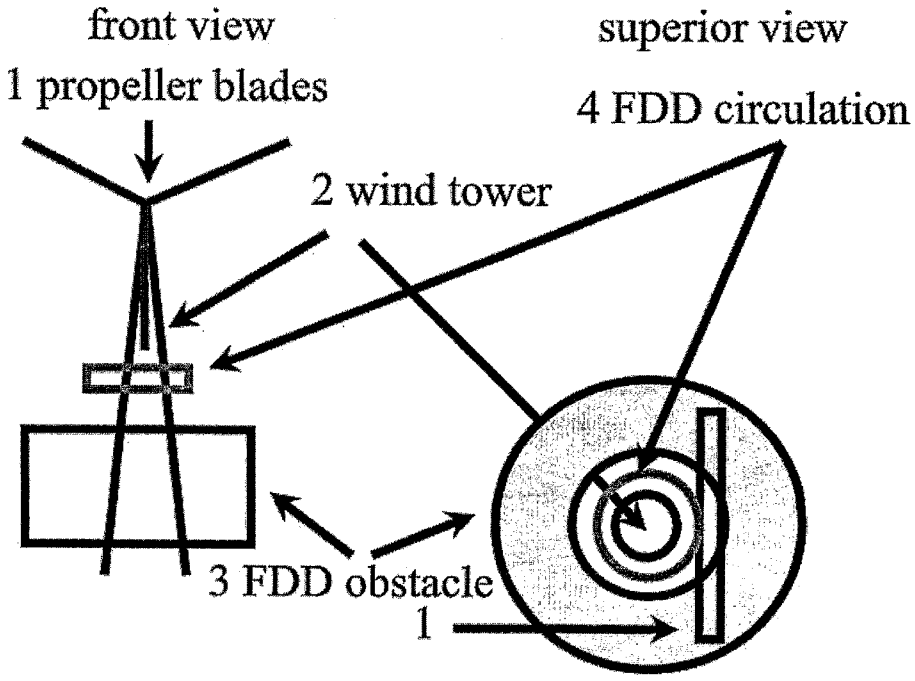
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(54) Title: FLOW DEFLECTION DEVICES AND METHOD FOR ENERGY CAPTURE MACHINES



(57) Abstract: The flow of fluid into energy capture machines is crucial for determining the amount of energy extracted, particularly in the field of renewable energy resources. The current invention describes devices and methods for applying the physics of flow to energy capture machines, most commonly wind and water turbines, by enhancing the flow into the energy capture component by the appropriate placement of various objects called flow deflection devices (FDD). FDDs can make a highly significant improvement in power output.

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INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

IPC: **F03D 9/00**(2006.01);**F03B 13/00**(2006.01),**9/00**(2006.01);**F01D 5/00**(2006.01),**23/00**(2006.01);**F16D 31/02**(2006.01)

USPC: 290/43,44,54,55;416/132B,416/7;60/398

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 290/43, 44, 54, 55; 416/132B; 415/7; 60/398

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,051,892 A (Toal, Sr.) 18 April 2000 (18.04.2000), see figures 1, 2	1-26, 369-374, 412-417
A	US 4,779,006 A (Worthham) 18 October 1988 (18.10.1988), see figure 1	27-138, 305-328, 358-367, 436- 440, 473-478, 483 - 493, 494 - 496, 497 - 545
A	US 6,710,468 B1 (Marrero O'Shannahan) 23 March 2004 (23.03.2004), see figure 3	139-149, 159-165, 429-434, 449-472, 479-482
A	US 4,740,711 A (Sato et al) 26 April 1988 (26.04.1988), see figure 1	150-158

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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05 August 2008 (05.08.2008)	13 AUG 2008
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,720,640 A (Anderson et al) 19 January 1988 (19.01.1988), see figures 1, 3a-3f, 5b, 19	166-179,169, 180-281, 282 -304, 329- 351, 352- 357, 368, 375- 387, 388- 411, 418- 428, 435, 441- 448, 436- 440, 473- 478, 483 - 493, 494 - 496, 497 - 545
A	US 6,982,498 B2 (Tharp) 03 Januray 2006 (03.01.2006), see figure 1	
A	US 7,026,723 B2 (Moreno) 11 April 2006 (11.04.2006), see figure 1	1- 26
A	US 2005/0248161 A1 (Heidel) 10 November 2005 (10.11.2005), see figures 2b, 4	1 - 26
A, P	US 7,112,892 B2 (Mahowald) 26 September 2006 (26.09.2006), see figures 2, 3	1 - 26
A	US 6,849,963 B2 (Grinsted et al) 01 February 2005 (01.02.2005), see figure 1	436- 440, 473- 478