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(54) Title: WIND TURBINE BLADES WITH MIXER LOBES

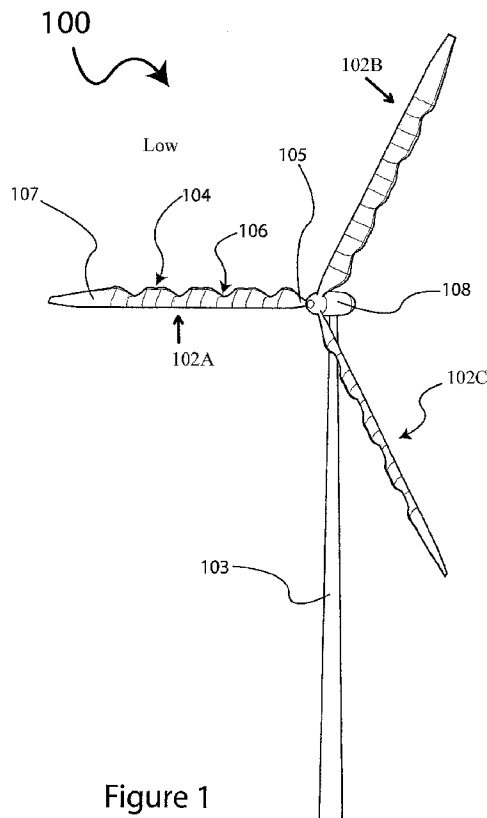


Figure 1

(57) Abstract: A horizontal axis wind turbine blade comprises a leading edge surface, a trailing edge surface, an upper camber surface extending between the leading edge surface and the trailing edge surface, and a lower camber surface extending between the leading edge surface and the trailing edge surface. Notably, the trailing edge surface includes a plurality of air flow mixing lobes. An ejector blade may be located above the upper camber surface and behind the trailing edge surface. The ejector blade may include an ejector blade trailing edge surface that includes a plurality of ejector blade mixing lobes. The ejector blade mixing lobes may include a plurality of ejector blade high energy mixing lobes and ejector blade low energy mixing lobes. Advantageously, the mixing lobes allow for a reduced wakes behind the HAWT and thus decrease the requisite separation distance between HAWTs in a wind farm.



GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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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)

F03D

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 practical, search terms used)

EPO-Internal

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Y	paragraph [0026] - paragraph [0033]; figures	4-6, 10-12
X	----- WO 92/05341 A1 (MOSER JOSEF [DE]) 2 April 1992 (1992-04-02) page 6, line 1 - page 7, line 14; figures 1-6	1-3, 7-9
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Date of the actual completion of the international search

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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