

Title (en)

TRANSMISSION DEVICE FOR A MACHINE FOR PRODUCING ELECTRICITY FROM A VARIABLE SPEED MOTIVE SOURCE, UNIT FOR PRODUCING ELECTRICITY AND WIND MACHINE BOTH SO EQUIPPED, AND METHOD OF ADJUSTING A TRANSMISSION RATIO

Title (de)

GETRIEBEVORRICHTUNG FÜR EINE MASCHINE ZUR ERZEUGUNG VON ELEKTRIZITÄT AUS EINER ANTRIEBSQUELLE MIT VARIABLER DREHZAHN, SO AUSGESTATTETE EINHEIT ZUR ERZEUGUNG VON ELEKTRIZITÄT UND WINDMASCHINE SOWIE VERFAHREN ZUR EINSTELLUNG EINES ÜBERSETZUNGSVERHÄLTNISS

Title (fr)

DISPOSITIF DE TRANSMISSION POUR MACHINE DE PRODUCTION D'ELECTRICITE A PARTIR D'UNE SOURCE MOTRICE A VITESSE VARIABLE, UNITE DE PRODUCTION ELECTRIQUE ET EOLIENNE AINSI EQUIPEES, ET PROCEDE DE REGLAGE D'UN RAPPORT DE TRANSMISSION

Publication

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Application

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Priority

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- FR 0850849 A 20080211

Abstract (en)

[origin: CA2714440A1] Two identical differential mechanisms 13, 113 are mounted in parallel between the input shaft 11 connected to the rotor 1 of the wind generator by a speed step-up device 4, and the output shaft 12 connected to a synchronous generator 3. The two planet gears 14, 114 are secured to the output shaft 12. The two planet carriers 17, 117 are secured to the input shaft 11. The two annulus gears 16, 116 therefore rotate at the same speed. They are connected by slightly differing transmission ratios 66, 166, of which one is also reversing with respect to the other, to the two input elements 22, 23 of a comparator differential 141. The cage 146 of this differential rotates at a speed equal to half the difference between the absolute values of the rotational speeds of the elements 22 and 23. After multiplication by gearing 147, 148, this low speed is applied to the rotor 133 of a regulating apparatus 32 such as an electric generator. The transmission ratio is adjusted or regulated by altering the torque applied by the regulating generator 32. Use for perfectly stabilizing the rotational speed of the synchronous generator 3 and allowing it to be constantly connected to the network with the regulating apparatus 32 consuming only a small amount of energy.

IPC 8 full level

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