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(54) Title: AERODYNAMIC OPTIMIZATION OF THE SIZING AND BLADE DESIGNS OF COROTATING COAXIAL ROTORS

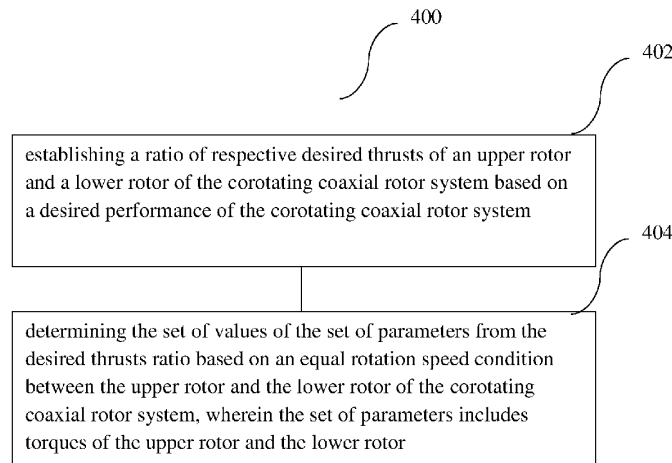


Figure 4

(57) Abstract: A method and system for generating a set of values for respective ones of a set of parameters used in determining rotor blade profiles for a corotating coaxial rotor system. The method comprises establishing a ratio of respective desired thrusts of an upper rotor and a lower rotor of the corotating coaxial rotor system based on a desired performance of the corotating coaxial rotor system; and determining the set of values of the set of parameters from the desired thrusts ratio based on an equal rotation speed condition between the upper rotor and the lower rotor of the corotating coaxial rotor system, wherein the set of parameters includes torques of the upper rotor and the lower rotor.

[Continued on next page]

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