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Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i))
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

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(54) Title: VERTICAL TAKE OFF AND LANDING UNMANNED AERIAL VEHICLE WITH TWIN YAW CONTROL SYSTEM

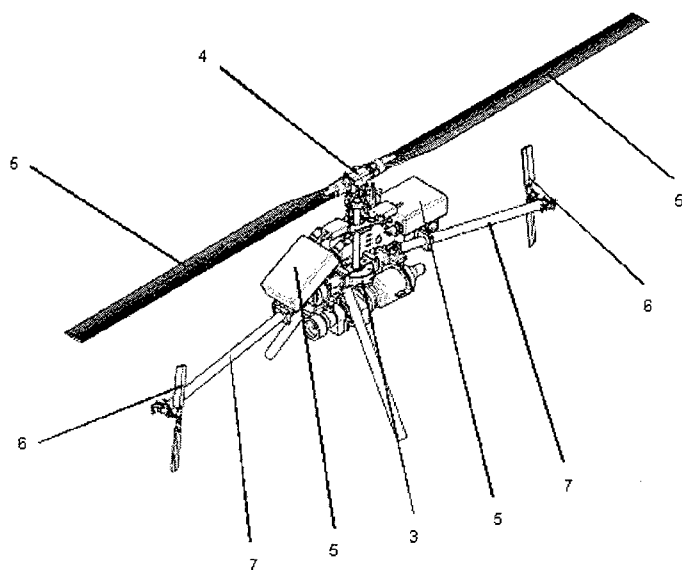


Figure 4

(57) Abstract: Vertical Take Off and Landing Unmanned Aerial Vehicle (VTOL UAV) with Twin Yaw Control System (TYCS). TYCS consists of auxiliary rotors (6) which are connected to the main rotor head frame. They acquire rotational forces from a gearbox (3) and control the movement of VTOL UAV to left- and right-directions as well as produce an anti-torque to counter the torque induced from the rotation of the main rotor (5) around the main rotor head (4) at certain rotational velocity until sufficient lift is created in vertical direction to lift VTOL UAV up and down in the air vertically. Apart from this, TYCS also helps balance the torque around the vertical axis created by the rotation of the main rotor (5). This results in the upright alignment of VTOL UAV parallel to the vertical axis at all times and therefore there is no need for a trim from external pilot or automatic flight control system while flying.



— *of inventorship (Rule 4.17(iv))*

— *with amended claims (Art. 19(1))*

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