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(57) Abstract :

Title: SMART LANDING GEAR WHEEL FOR A FIXED WING AIRCRAFT ABSTRACT A smart landing gear for a fixed wing aircraft 200 comprising: a smart fins 204 on a wheel base 202 with an access to expose and suppress ambient air during operation that retracts through mechanisms during take-off to reduce drag and to avoid the aerodynamic imbalance of wheel during take-off and the smart fins 204 is exposed to ambient air before landing to extract energy from air stream (aerodynamic), travelling around there and starts rotating before touching ground and also a landing wheels are assembled with break system to reduce the speed which is more than desired speed for touching ground, wherein a smart landing Gear wheel for a fixed wing aircraft to minimize a friction between runway and tyre during landing. The Mechanism for smart fin 204 movement is activated through hydraulic, pneumatic or electromechanical systems. The exposed surface area/geometry of the fins 204 is controlled by mechanism and this provides additional degree of freedom to control the required rotational speed of the gear wheel. FIG. 2A through FIG. 2C

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