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Ahmad et al.

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(54) **AUXILIARY POWER AND THRUST UNIT DRIVE SYSTEM**

5/12; F05D 2240/24; F05D 2220/50; F05D 2240/12

See application file for complete search history.

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 147 days.

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(52) **U.S. Cl.**
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(57) **ABSTRACT**

An aircraft auxiliary power and thrust unit includes at least one blade mounted to a fan shaft which are mounted to a tail cone of the aircraft and rotatable relative to the tail cone. Also included is an air intake assembly which includes an opening defined by the tail cone and a channel in fluid communication with the opening and the at least one blade. A first drive shaft positioned to extend in a direction transverse to the fan shaft and engageable to rotate with the fan shaft and first drive shaft engaged and the first drive shaft engageable to a second drive shaft positioned transverse to the first drive shaft such that the second drive shaft rotates with the first drive shaft with the first and second drive shafts engaged. The second drive shaft is positioned outside of the channel of the air intake.

(58) **Field of Classification Search**
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