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(54) Title: FAN CASE REINFORCEMENT IN A GAS TURBINE JET ENGINE

(57) Abstract: Described is reinforcement of a fan case in a gas turbine jet engine. In one embodiment, a containment ring and a heat resistance ring are shrink interference fit on the inside diameter of the fan case, the containment ring where the large fan blades turn, and the heat resistance ring where heated air from backfiring heats up the fan case. In one example, the containment ring is made of a steel alloy to provide added strength to the fan case should a fan blade break, containing the fan blade within the fan case. Also, the containment ring may extend forward of at least the leading edge of each fan blade and aft of at least the trailing edge of each fan blade. The heat resistance ring is made of titanium or other suitable material. Additionally, one or more stiffener rings may be shrink interference fit on the outside diameter of the fan case. The containment ring and stiffener rings can reduce the flight weight of the fan case and lower the material costs, while increasing the containment strength of the fan case. Other embodiments are described and claimed.



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