ABSTRACT

FAN CASE REINFORCEMENT IN A GAS TURBINE JET ENGINE

Described is reinforcement of a fan case (302) in a gas turbine jet engine. In one embodiment, a containment ring (702) and a hear resistance ring (1112) are shrink interference fit on the inside diameter of the fan case, the containment ring where the large fan blades (104) 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 sue 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 extent forward of at least the leading edge (1604) of each fan blade and aft of at least the trailing edge (1608) of each fan blade. The heat resistance ring (1112) is made of titanium or other suitable material. Additionally, one or more stiffener rings (1104, 1106) may be shrink interference fit on the outside diameter of the fan case.

(Figure 3)