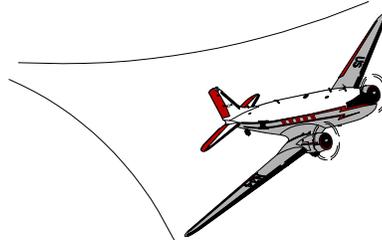


SPECIAL AIRWORTHINESS INFORMATION BULLETIN



U.S. Department
of Transportation
**Federal Aviation
Administration**

AIRCRAFT CERTIFICATION SERVICE
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This is issued for informational purposes only and any recommendation for corrective action is not mandatory.

INTRODUCTION

The purpose of this Special Airworthiness Information Bulletin is to advise International Civil Aviation Authorities (ICAAs) and FAA Flight Standards District Offices (FSDOs) of the importance of incorporating Alert Service Bulletin (ASB) number 6178 on Pratt & Whitney (PW) JT8D engines. This bulletin recommends incorporation of the cutback 3rd turbine blade, ASB 6178, on JT8D-15A/-17A/-17AR engine models that have not yet incorporated the cutback 3rd turbine blades. However, this bulletin is for information purposes only and the recommendations contained herein are not mandatory.

BACKGROUND

The FAA issued Airworthiness Directives (AD) 94-20-08 and 94-20-09 in October 1994 to require installation of low pressure turbine (LPT) containment hardware. AD 94-20-09 was applicable to "A" model engines (JT8D-15A/-17A/-17AR) and AD 94-20-08 was applicable to all other basic JT8D engine (non-A) models. The LPT containment hardware consisted of a strengthened fan duct segment and thicker honeycomb air seal to provide improved shielding from engine debris (ASB 6110). The containment hardware also included a bushing on the bearing scavenge pump bracket (ASB 6131) and a cutback of the flow guide vanes (ASB 5748, A models only) to ensure rotor meshing in the event of a shaft fracture. An experimental engine test by PW on an "A" model engine in which a shaft failure was induced revealed that the effectiveness of the rotor meshing was limited by the presence of excess material on the rear face of the 3rd turbine blade platform. This blade is unique to the "A" model engines and the containment capability of the non-A engines is adequate once AD 94-20-08 is complied with. Meshing did occur during the engine test, but the rotor exceeded the maximum speed at which the released turbine blades would be contained. The engine test was intended to simulate worst case conditions, and therefore, compliance with AD 94-20-09 will provide containment protection under most circumstances. However, compliance with ASB 6178 concurrent with AD 94-20-09 compliance will ensure the maximum level of containment protection is provided.

RECOMMENDATIONS

ICAAs and FAA FSDOs should recommend that operators of JT8D-15A/-17A/-17AR engine models incorporate PW ASB 6178 when incorporating the other containment hardware specified in AD 94-20-09.

FOR FURTHER INFORMATION CONTACT:

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