AD/PHZL/67 Propeller Blade Cracking 11/96 DM

Applicability: All Hartzell HC-B3TN, HC-B5MP, HC-E4A and HC-D4N series propellers equipped with propeller blades identified by serial number and listed in the Requirement Document and were manufactured between March 1992 and June 1996. These propellers are installed on but not limited to the following aircraft;

Air Tractor AT-502, AT-503 and AT-802 series

Antonov AN-28 series

Ayres S2R series

Douglas DC-3 (STC modified)

Aerospatiale (Nord) 262 (Mohawk) series (STC Modified)

Norman Aeroplanes NAC-6 series

Pilatus PC-7 mk II, PC-9 and PC 12 series

PZL PZL-M18 (STC Modified)

Shorts Brothers plc S-312 Tucano (Military), SD3 and C-23 (Military) series

Twin Commander 690 and 695 series (STC Modified)

Requirement: To prevent propeller blade separation caused by propeller blade shank cracks emanating from forging flaws, action in accordance with Hartzell Alert Service Bulletin HC-ASB-61-220 dated July 8/96.

Note: FAA AD 96-15-04 Amdt 39-9697 refers.

Compliance:

1. For propellers installed on agricultural or acrobatic aircraft such as Air Tractor AT-502, AT-503 and AT-802 series, Ayres S2R series, Norman Aeroplanes NAC-6 series, Pilatus PC-7 mk II or PC-9 series, PZL PZL-M18 and Shorts Brothers plc S-312 Tucano (Military); unless previously carried out, within 10 hours time in service from an effective date of 23 August 1996.

2. For all other propellers regardless of aircraft installation; unless previously carried out, comply within 60 hours time in service from an effective date of 23 August 1996.

3. For propellers that have not complied with the requirements of this Directive, which experience a sudden or unusual vibration; prior to further flight effective from 23 August 1996.

Background: A Shorts Tucano propeller suffered an in-flight blade failure approximately 150 mm (6 inches) from the blade butt. Subsequent investigation of the blade stub confirmed a forging flaw was responsible for the blade failure. As it is unknown whether other blades manufactured from the same blade lot may be affected, all blades will require inspection.