

Boeing 737 Series Aeroplanes

AD/B737/108

**Rudder Standby Power Control
Unit - Bearing Replacement**

4/98

Applicability: Model 737-100,-200,-300,-400, and 500 series aeroplanes.

Requirement: 1. Perform an inspection to detect galling on the input shaft in accordance with FAA AD 97-26-01.

2. Replace the Rudder Standby Power Control Unit input shaft bearing on all applicable aircraft in accordance with Boeing Service Letter 737-SL-27-113 dated 19 February 1997 and Dowty Aerospace Service Bulletin 1150-27-04 dated 1 November 1996.

Note: FAA AD 97-26-01 Amdt 36-10244 refers.

Compliance: 1. Within 18 months or 4,500 hours time-in-service after the effective date of this directive whichever occurs later and thereafter every 18 months or 4,500 hours time-in-service if requirement 2 has not been accomplished.

2. Within 3 years of the effective date of this Directive.

This airworthiness directive becomes effective on 26 March 1998.

Background: The current Standby PCU input bearing utilises a lapped journal bearing. The design has been shown to gall in service (galling is defined as metal transfer from one surface to another of two similar materials). Galling in the bearing can increase the force required to move the input lever to the standby PCU. At high enough force levels, the galling can cause yaw damper inputs to backdrive the rudder pedals. This can also lead to increased yaw damper authority. The new lever installation is designed with rolling element bearings to eliminate the galling potential. Installation of this design improvement is considered terminating action for FAA AD 97-26-01. This AD also includes a lever force check and an inspection that must be accomplished at certain intervals until the bearing is incorporated.