

Boeing 737 Series Aeroplanes

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**AD/B737/103**

**Rudder Power Control Unit Replacement**

**6/97  
DM**

**Applicability:** Model 737 series aeroplanes, having a main rudder power control unit (PCU) that is identified in Boeing Service Letter 737-SL-27-112-B, dated February 6, 1997, certificated in any category.

**Requirement:** To prevent cracking and seizing of the internal summing lever assembly bearing of the main rudder power control unit (PCU), remove the main rudder PCU and replace with a serviceable unit in accordance with Boeing Service Letter 737-SL-27-112-B dated February 6, 1997.

*Note: FAA AD 97-05-10 refers.*

**Compliance:** Requirement to be completed within 90 days of the effective date of this Directive.

This Airworthiness Directive becomes effective on 1 April 1997.

**Background:** The FAA has received a report of cracking of the internal summing lever of the main rudder PCU on a model 737 airplane. Investigation showed that a Hi-Lock bolt had been installed in the lever assembly by a repair station instead of the correct specification bolt (Boeing Part No. 66-22749-1). The larger bolt radius of the Hi Lock bolt in the shoulder to shank transition area was such as to create an interference fit with the bearing that caused the inner race of the bearing to crack. Such cracking, if not detected and corrected could lead to seizure of the bearing and possible uncommanded rudder movement. This Directive removes from service all main rudder PCUs which could possibly have had an incorrect bolt fitted.

A separate directive has been raised to address the second part of the FAA AD 97-05-10 which is the on-going inspection of all main rudder PCUs prior to fitment to an aircraft.