

Follow-up Action on Occurrence Report

**ACCIDENT TO MD DC8-63F, 9G-MKO, AT RAF LYNEHAM ON 29 APRIL 2003
(AIRCRAFT RIGHT MAIN LANDING GEAR PISTON FRACTURED DURING TAXI)**

CAA FACTOR NUMBER : F12/2005
FACTOR PUBLICATION DATE : 12 April 2005
OPERATOR : MK Airlines
CAA OCCURRENCE NUMBER : 2003/02699
AAIB REPORT : Bulletin 3/2005

SYNOPSIS

(From AAIB Report)

The aircraft's right main landing gear suffered extensive fracturing of its shock-strut piston as the aircraft was making a 180° taxiing turn. Associated disruption to the landing gear scissor linkage allowed the landing gear truck to diverge approximately 45° from the aircraft's heading, but one of the broken parts of the piston remained jammed in the shock-strut cylinder and continued to support the aircraft. Around 90% of the specified overhaul life of the landing gear remained at the time of the accident.

Specialist examination indicated that the piston material was in accordance with the aircraft manufacturer's specification. The fractures had originated from a small pre-existing stress corrosion crack in an area of the surface where cadmium plating was absent. The crack had probably been initiated by abnormally high local stresses associated with a step in a blend radius in the region of the crack origin and with surface scratches in the area. These features should have been apparent during the last overhaul of the landing gear. The pre-existing crack, while small, was probably sufficient to cause the rapid extensive fracturing of the piston under normal operating loads, given the notch sensitivity of the high-strength steel from which it was made.

One safety recommendation, relating to the Federal Aviation Administration's oversight of overhaul organisations has been made.

FOLLOW UP ACTION

The one Safety Recommendation, made by the AAIB following their investigation, is reproduced below, together with the CAA's response.

Recommendation 2005-04

It is recommended that the Federal Aviation Administration (FAA) take measures aimed at ensuring that overhaul organisations approved by them have in place adequate standards of quality control.

CAA Response

This Recommendation is not addressed to the CAA.

CAA Status - Closed