
Smoke on rotation, Boeing 757-236, G-CPES

Micro-summary: On rotation of this Boeing 757, the crew noticed a burning smell.

Event Date: 2003-11-19 at 1055 UTC

Investigative Body: Aircraft Accident Investigation Board (AAIB), United Kingdom

Investigative Body's Web Site: <http://www.aaib.dft.gov/uk/>

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Boeing 757-236, G-CPES

AAIB Bulletin No: 12/2004	Ref: EW/G2003/11/21	Category: 1.1
INCIDENT		
Aircraft Type and Registration:	Boeing 757-236, G-CPES	
No & Type of Engines:	2 Rolls-Royce RB211-535E4-37 turbofan engines	
Year of Manufacture:	1998	
Date & Time (UTC):	19 November 2003 at 1055 hrs	
Location:	After takeoff from London Heathrow	
Type of Flight:	Public Transport (Passenger)	
Persons on Board:	Crew - 9	Passengers - 63
Injuries:	Crew - None	Passengers - None
Nature of Damage:	None	
Commander's Licence:	Airline Transport Pilot's Licence	
Commander's Age:	42 years	
Commander's Flying Experience:	12,100 hours (of which 5,100 were on type)	
	Last 90 days - 207 hours	
	Last 28 days - 72 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

History of the flight

The aircraft was operating a scheduled passenger flight from London Heathrow to Istanbul. As the aircraft rotated on takeoff a 'strong smell of oil' became apparent in the cockpit. The flight crew turned their attention to the problem after completing the after takeoff checks, at which point the smell was still present, although somewhat less intense. The Cabin Services Director was called to the cockpit to verify the presence of the smell.

The flight crew decided that the most prudent option was to return to London Heathrow and planned a diversion accordingly, declaring a PAN to air traffic control. The appropriate Quick Reference Handbook (QRH) procedure was followed, which required the crew to don their oxygen masks. The approach and landing at Heathrow were uneventful and there were no injuries to any of the passengers or crew.

Engineering investigation

Despite extensive troubleshooting, no defects were found that could have produced the oil smell in the cockpit. A check of the engine oil quantities however, showed that they were above the operator's defined limit for the maximum fill level. In-service experience has shown that one possible effect of overfilling the engines with oil is for oil to leak past the compressor front bearing seal and enter the gas path and be drawn into the cabin/cockpit air supply. For this reason, the operator had established an 'in-house' maximum fill level of one litre below the 'FULL' graduation on the oil tank sight glass. The operator has since amended its procedures for servicing the engine oil, to further reduce the likelihood of overfilling.

Additional investigations

On 7 September 2004, the crew of G-CPER, another Boeing 757 operated by the company, experienced, among other events, oil smells in the cockpit. The AAIB 'Inspector's Investigation' into this occurrence, which is still in progress, examines engine oil servicing issues in more detail. The results, in the form of an AAIB Formal Report, will be published separately.