

DC-10-100, G-DPSP, 17 November 2001 at 0701 hrs

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Category: 1.1

INCIDENT

Aircraft Type and Registration: DC-10-100, G-DPSP

No & Type of Engines: 3 General Electric CF6-6D1A turbofan engines

Year of Manufacture: 1979

Date & Time (UTC): 17 November 2001 at 0701 hrs

Location: Manchester Airport

Type of Flight: Public Transport (Passenger)

Persons on Board: Crew - 12 Passengers - 362

Injuries: Crew - None Passengers - None

Nature of Damage: Inspection panel holed

Commander's Licence: Airline Transport Pilot's Licence

Commander's Age: 39 years

Commander's Flying Experience: 9,706 hours (of which 493 were on type)

Information Source: AAIB Field Investigation

The aircraft made a normal landing, taxied clear of the runway and parked on stand. Neither the crew nor the passengers heard or observed anything unusual. A routine inspection of the runway however, carried out shortly after the landing, revealed amounts of tyre debris indicating that the aircraft had suffered a tyre burst. The crew were informed and an inspection of the aircraft found that No 4 tyre, the forward right hand tyre on the right main landing gear, had burst and some rubber marks and small dents had been made in the wing skin above the tyre. A hole, six inches in diameter, was also evident in an inspection panel just forward of the flaps. The runway was closed for approximately an hour while debris was cleared and the aircraft returned to service after the damaged panel, and three of the four wheels and tyres on the right main landing gear had been replaced.

The tyre that failed, a fourth remould (R4), had completed 134 landings since its last remould. Examination of the tyre indicated that the carcass had become fatigued due to over deflection and the tyre had burst releasing the tread when insufficient carcass strength remained. The primary cause was that the tyre had been under inflated.

The panel that was damaged (Part No ARC0267-504) was of a lightweight all aluminium honeycomb construction, approximately 0.25 inches thick with skins about 0.015 inches thick. It

covered an area just inboard of the 'sailboat' fairing housing fuel and hydraulic systems, and parts of the flap position follow-up mechanism. Examination of records held by the manufacturer concerning similar occurrences, and FAA Service Difficulty Reports, revealed 165 DC-10 and MD-11 tyre failure reports, of which two were similar to the subject incident. Both of these, however, had occurred on takeoff. In no case was damage to the systems behind the panel indicated, although the manufacturer pointed out that such reports were frequently not adequately detailed.

As a result of this incident the operator has initiated a review of the tyre inflation checks and procedures within the maintenance organisation.