

**Aviation Safety Investigation Report
199603730**

**Boeing Co
B767**

14 November 1996

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NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at www.atsb.gov.au.

The Bureau did not conduct an on scene investigation of this occurrence. The information presented below was obtained from information supplied to the Bureau.

Occurrence Number:	199603730	Occurrence Type:	Incident
Location:	Melbourne, Aerodrome		
State:	VIC	Inv Category:	4
Date:	Thursday 14 November 1996		
Time:	2147 hours	Time Zone	ESuT
Highest Injury Level:	None		

Aircraft Manufacturer:	Boeing Co	
Aircraft Model:	767-300	
Aircraft Registration:	OE-LAW	Serial Number:
Type of Operation:	Air Transport	Scheduled
Damage to Aircraft:	Minor	
Departure Point:	Sydney NSW	
Departure Time:		
Destination:	Melbourne Vic	

Approved for Release: Monday, July 7, 1997

As the aircraft took off from Sydney bound for Melbourne, sparks were seen in the area of the right main landing gear. Rescue and fire fighting services were placed on local alert for the aircraft's arrival at Melbourne. As the aircraft slowed at the end of the landing roll, the attending firemen reported smoke coming from the right main landing gear. The aircraft was halted while the fire crews extinguished a small fire and reported that one tyre was deflated. The engines were shut down and the aircraft towed to the terminal. Fire crews remained in attendance and reported that the tyre began to smoulder as the aircraft was approaching the parking bay. The passengers were deplaned normally. Forty minutes after landing the situation was reported under control.

Initial maintenance investigation found that the inner bearing on the number 8 wheel had seized. Extensive secondary damage had been sustained by the tyre, wheel and bogie unit. Further examination disclosed that the number 4 wheel inner bearing, fitted to the left bogie, showed similar damage.

The damaged components were returned to the operator for investigation under control of the Austrian airworthiness authority (AustroControl). The results of the metallurgical assessment of the bearing damage have not been received to date.

The manufacturer advised that there has been a small number of failed bearings on B767 aircraft. A service letter (767-SL-32-070) has been issued to introduce a grease seal and grease dam to resolve the problem of abnormal wear, overheating and damage to wheel bearings caused by inadequate bearing lubrication. To date the operator has not advised whether the bearings that failed were modified to the service letter standard, although AustroControl advised that the pattern of wear observed on the failed bearings, plus the presence of a quantity of grease residue would tend to preclude lack of lubrication as a causal factor.

The service letter also advised that the existing grease type, Aeroshell 5, was replaced with Aeroshell 22 or Mobil 28. The service letter advised that Aeroshell 5 could still be used on B767 aircraft, but not on B747 aircraft. To date the operator has not advised which grease was in use on the failed bearings.

There is no information from the operator on these aspects, but because the service bulletin was issued on 29 August 1996, only 8 weeks prior to this incident, it is considered unlikely that its requirements had been incorporated into the failed bearings.

The manufacturer also prescribed a critical wheel bearing torquing procedure that required double torquing of the bearings. AustroControl advised that the double torquing procedure is well known and observed within Lauda Air, and that a recent audit of the brake and wheel shop in accordance with JAR145 found that all pertinent procedures were being followed.

The factors surrounding the failure of the 2 bearings have not been determined.

