
Loss of main wheel, Boeing 737-347, December 24, 1999

Micro-summary: During takeoff, a wheel separated from the main landing gear of this Boeing 737-347.

Event Date: 1999-12-24 at 1349 MST


Investigative Body: National Transportation Safety Board (NTSB), USA


Investigative Body's Web Site: <http://www.nts.gov/>


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 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: DEN001A032		Aircraft Registration Number: N305WA	
		Occurrence Date: 12/24/1999		Most Critical Injury: None	
		Occurrence Type: Incident		Investigated By: NTSB	
Location/Time					
Nearest City/Place SALT LAKE CITY		State UT	Zip Code 84116	Local Time 1349	Time Zone MST
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series 737-347		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
<p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>On December 24, 1999, at 1349 mountain standard time, a Boeing 737-347, N305WA, operated by Delta Airlines as flight 1079 from Salt Lake City, Utah, to Detroit, Michigan, sustained minor damage when the landing gear right main inboard wheel assembly separated from the airplane during takeoff from Salt Lake City. There were no injuries to the 6 crew members and 127 passengers and the aircraft returned and landed at Salt Lake City, without incident, at 1630. The flight was operating under Title 14 CFR Part 121 as a scheduled domestic passenger flight and visual meteorological conditions prevailed. An IFR flight plan was filed.</p> <p>When the wheel separated from the aircraft it struck and damaged runway lighting. (See attached photographs.)</p> <p>Examination of the aircraft, following the event, revealed that a Boeing 757 main wheel bearing had been installed when the wheel was built up by Delta maintenance in Atlanta, Georgia.</p> <p>The difference between the two wheel bearings is the inner diameter of the bore. The correct bearing (part number 596) has a diameter of 3.375 inches and the incorrect bearing (part number 594) has a diameter of 3.750 inches.</p> <p>Boeing Commercial Airplane Group records search provided information that five cases of incorrect bearing installation have been reported to Boeing: Two cases in 1990, one in 1997, and two in 1999.</p>					
FACTUAL REPORT - AVIATION					

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: DEN001A032			
		Occurrence Date: 12/24/1999			
		Occurrence Type: Incident			
Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
SALT LAKE CITY INT'L	SLC	4227 Ft. MSL	34R	12004	150
Runway Surface Type: Concrete					
Runway Surface Condition: Dry					
Type Instrument Approach:					
VFR Approach/Landing:					
Aircraft Information					
Aircraft Manufacturer		Model/Series		Serial Number	
Boeing		737-347		23346	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 135	Certified Max Gross Wt.	130000 LBS	Number of Engines: 2	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Fan	GE	CFM56-3	20000 LBS		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
Continuous Airworthiness	11/1999	Hours	36898 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? No	ELT Operated?	ELT Aided in Locating Accident Site?			
Owner/Operator Information					
Registered Aircraft Owner		Street Address			
STATE STREET BANK AND TRUST		225 ASYLUM ST FL23			
		City	State	Zip Code	
		HARTFORD	CT	06103	
Operator of Aircraft		Street Address			
DELTA AIRLINES		1020 DELTA BLVD.			
		City	State	Zip Code	
		ATLANTA	GA	30320	
Operator Does Business As:			Operator Designator Code: DALA		
- Type of U.S. Certificate(s) Held:					
Air Carrier Operating Certificate(s): Flag Carrier/Domestic					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 121: Air Carrier					
Type of Flight Operation Conducted: Scheduled; Domestic; Passenger/Cargo					
FACTUAL REPORT - AVIATION					

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: DEN001A032	
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	Occurrence Type: Incident	

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 41
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Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot	Certificate Number: On File
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Certificate(s): Airline Transport

Airplane Rating(s): Multi-engine Land

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review?
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 08/1999
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- Flight Time Matrix

	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	11500	1850								
Pilot In Command(PIC)										
Instructor										
Last 90 Days	46	46								
Last 30 Days										
Last 24 Hours										

Seatbelt Used? Yes	Shoulder Harness Used? Yes	Toxicology Performed? No	Second Pilot? Yes
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Flight Plan/Itinerary

Type of Flight Plan Filed: IFR

Departure Point Same as Accident/Incident Location	State	Airport Identifier SLC	Departure Time 1349	Time Zone MST
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Destination DETROIT	State MI	Airport Identifier DTW	
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Type of Clearance: IFR

Type of Airspace: Class A

Weather Information

Source of Briefing:
Company

Method of Briefing:

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Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
SLC	1635	MST	4227 Ft. MSL	1 NM	160 Deg. Mag.
Sky/Lowest Cloud Condition: Clear			0 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: None		0 Ft. AGL	Visibility: 6 SM	Altimeter: 30.00	"Hg
Temperature: 2 °C	Dew Point: -3 °C	Wind Direction: 290		Density Altitude: 4000	Ft.
Wind Speed: 6	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): 0 Ft.	Visibility (RVV) 0 SM	Intensity of Precipitation: Unknown			
Restrictions to Visibility: None					
Type of Precipitation: None					

Accident Information		
Aircraft Damage: Minor	Aircraft Fire: None	Aircraft Explosion: None

Classification: U.S. Registered/U.S. Soil					
- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot				1	1
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants				5	5
Other Crew					
Passengers				128	128
- TOTAL ABOARD -				135	135
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	135	135

National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: DEN001A032

Occurrence Date: 12/24/1999

Occurrence Type: Incident

Administrative Information

Investigator-In-Charge (IIC)

NORMAN F. WIEMEYER

Additional Persons Participating in This Accident/Incident Investigation:

BILL CHANEY
FAA FSDO
SALT LAKE CITY, UT 84116