
Cracked main landing gear cylinder, Douglas DC-8-61, July 4, 1997

Micro-summary: This McDonnell Douglas DC-8-61 experienced a cracked right main landing gear cylinder.


Event Date: 1997-07-04 at 2155 EDT


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


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


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		NTSB ID: MIA97IA206		Aircraft Registration Number: N27UA	
		Occurrence Date: 07/04/1997		Most Critical Injury: None	
		Occurrence Type: Incident		Investigated By: NTSB	
Location/Time					
Nearest City/Place MIAMI	State FL	Zip Code 33152	Local Time 2155	Time Zone EDT	
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer McDonnell Douglas		Model/Series DC-8-61		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 July 4, 1997, at about 2155 eastern daylight time, a McDonnell Douglas DC-8-61, N27UA, registered to Argo Air Associates, operated by Fine Airlines, as a Title 14 CFR Part 121 nonscheduled international cargo flight, found a cracked right main landing cylinder assembly after landing at Miami International Airport, Miami, Florida. Visual meteorological conditions prevailed and an IFR flight plan was filed. The airline transport-rated pilot-in-command, first officer, and flight engineer reported no injuries. The flight originated from Santo Domingo, about 3 hours 10 minutes before the accident.</p> <p>Review of maintenance records revealed the airplane was 25,699 pounds below landing weight. The right main landing gear shock strut assembly had accumulated a total of 20, 874 hours.</p> <p>The right main landing gear cylinder was transported to the Boeing Douglas Products Division for further examination. According to Boeing Douglas Product Division, the failure of the main landing gear cylinder occurred by stress corrosion cracking which initiated at the threaded portion of the lower end along the first and second full, upper, internal thread roots, about 0.85 inches from the bottom of the cylinder. The cadmium plating in the corrosion areas was sacrificially depleted. This depletion of cadmium plating made the base metal susceptible to stress corrosion cracking. No material or processing discrepancies were found. For additional information see Materials and Processing Engineering Laboratory Report No. LR-15773.</p> <p>Mr. Richard McCallman, Chief Inspector, Fine Airlines, Inc., authorized the right main landing gear cylinder to be disposed of locally by Boeing Douglas Products Division, on December 10, 1997.</p>					
FACTUAL REPORT - AVIATION					

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: MIA97IA206				
		Occurrence Date: 07/04/1997				
		Occurrence Type: Incident				
Landing Facility/Approach Information						
Airport Name MIAMI INTERNATIONAL		Airport ID: MIA	Airport Elevation 11 Ft. MSL	Runway Used 0	Runway Length	Runway Width
Runway Surface Type:						
Runway Surface Condition:						
Type Instrument Approach: NONE						
VFR Approach/Landing: Traffic Pattern						
Aircraft Information						
Aircraft Manufacturer McDonnell Douglas		Model/Series DC-8-61		Serial Number 45942		
Airworthiness Certificate(s): Transport						
Landing Gear Type: Retractable - Tricycle						
Homebuilt Aircraft? No	Number of Seats: 3	Certified Max Gross Wt.	320300 LBS	Number of Engines: 4		
Engine Type: Turbo Fan	Engine Manufacturer: P&W	Model/Series: JT3D-3B	Rated Power: 18000 LBS			
- Aircraft Inspection Information						
Type of Last Inspection Continuous Airworthiness	Date of Last Inspection 06/1997	Time Since Last Inspection 76 Hours	Airframe Total Time 46711 Hours			
- Emergency Locator Transmitter (ELT) Information						
ELT Installed? No	ELT Operated?	ELT Aided in Locating Accident Site?				
Owner/Operator Information						
Registered Aircraft Owner ARGO AIR ASSOCIATES		Street Address PO BOX 524236				
		City MIAMI	State FL	Zip Code 33152		
Operator of Aircraft FINE AIRLINES		Street Address 4600 N.W. 36TH STREET				
		City MIAMI	State FL	Zip Code 33122		
Operator Does Business As:			Operator Designator Code: FXLA			
- Type of U.S. Certificate(s) Held: None						
Air Carrier Operating Certificate(s):						
Operating Certificate:			Operator Certificate:			
Regulation Flight Conducted Under: Part 121: Air Carrier						
Type of Flight Operation Conducted: Non-scheduled; International; Cargo						

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		Occurrence Date: 07/04/1997			
		Occurrence Type: Incident			
First Pilot Information					
Name		City		State	Date of Birth
On File		On File		On File	Age
					44
Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot		Certificate Number: On File	
Certificate(s): Airline Transport; Commercial					
Airplane Rating(s): Multi-engine Land; Single-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?	
Medical Cert.: Class 1		Medical Cert. Status: Valid Medical--no waivers/lim.		Date of Last Medical Exam: 02/1997	
- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night
Total Time	2100	2000			
Pilot In Command(PIC)					
Instructor					
Last 90 Days		180			
Last 30 Days		64			
Last 24 Hours		4			
Seatbelt Used? Yes		Shoulder Harness Used? Yes		Toxicology Performed? No	
				Second Pilot? Yes	
Flight Plan/Itinerary					
Type of Flight Plan Filed: IFR					
Departure Point		State	Airport Identifier	Departure Time	Time Zone
SANTO DOMINGO		OF	SDQ	1845	ADT
Destination		State	Airport Identifier		
Same as Accident/Incident Location			MIA		
Type of Clearance: IFR					
Type of Airspace: Class D					
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
MIA	2156	EDT	11 Ft. MSL	0 NM	0 Deg. Mag.
Sky/Lowest Cloud Condition: Scattered			0 Ft. AGL	Condition of Light: Dusk	
Lowest Ceiling: Broken		6500 Ft. AGL		Visibility: 9 SM	Altimeter: 29.00 "Hg
Temperature: 26 °C	Dew Point: 23 °C	Wind Direction: 180			Density Altitude: Ft.
Wind Speed: 7	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				1	1
Cabin Attendants					
Other Crew					
Passengers					
- TOTAL ABOARD -				3	3
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	3	3

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	Occurrence Type: Incident	
Administrative Information		
Investigator-In-Charge (IIC) CARROL A. SMITH		
Additional Persons Participating in This Accident/Incident Investigation: LOUIS CARMONA MIAMI FSDO MIAMI, FL 33159 WILLIAM C STEELHAMMER BOEING DOUGLAS PRODUCT DIVISIO LONG BEACH, CA 90846		
FACTUAL REPORT - AVIATION		