



National Transportation Safety Board Aviation Accident Final Report

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|--------------------------------|--------------------------------------|-------------------------|------------|
| Location: | RAMONA, CA | Accident Number: | LAX90LA120 |
| Date & Time: | 03/16/1990, 1440 PST | Registration: | N711AG |
| Aircraft: | CESSNA 414 | Aircraft Damage: | Destroyed |
| Defining Event: | | Injuries: | 3 None |
| Flight Conducted Under: | Part 91: General Aviation - Personal | | |

Analysis

THE PILOT REPORTED THAT THE AIRCRAFT LANDED NORMALLY AND DURING THE LANDING ROLL A LOUD 'BANG' WAS HEARD AND THE RIGHT MAIN LANDING GEAR COLLAPSED. AN INVESTIGATION WAS CONDUCTED BY AN FAA AIRWORTHINESS INSPECTOR. DURING THIS INVESTIGATION, IT WAS NOTED THAT A WASHER IN THE RIGHT MAIN LANDING GEAR ASSEMBLY FAILED. SUBSEQUENT INVESTIGATION, INCLUDING A REVIEW OF THE AIRCRAFT MAINTENANCE RECORDS, REVEALED THAT CESSNA AIRCRAFT SERVICE INFORMATION LETTER NUMBER ME83-37, DATED NOVEMBER 23, 1983 HAD NOT BEEN COMPLIED WITH. THIS SERVICE LETTER RECOMMENDED REPLACEMENT OF THE ORIGINAL WASHERS WITH A NEW WASHER, CESSNA PART NUMBER S1450-5H12-063. (OLD PART NUMBER 5045018-2)

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: RIGHT MAIN GEAR SCISSORS ASSEMBLY BECOMING DISCONNECTED DURING LANDING ROLL, ALLOWING THE RIGHT MAIN LANDING GEAR TO COLLAPSE; SCISSOR ASSEMBLY WASHERS NOT BEING REPLACED AS RECOMMENDED IN CESSNA AIRCRAFT SERVICE BULLETIN ME83-37..

Findings

Occurrence #1: MAIN GEAR COLLAPSED
Phase of Operation: LANDING - ROLL

Findings

1. (C) LANDING GEAR, MAIN GEAR STRUT SCISSORS - DISCONNECTED
2. (C) MAINTENANCE, SERVICE BULLETIN/LETTER - NOT PERFORMED - OTHER PERSON

Factual Information

Pilot Information

| | | | |
|----------------------------------|---|-------------------------------|------------|
| Certificate: | Commercial | Age: | 46, Male |
| Airplane Rating(s): | Multi-engine Land; Single-engine Land; Single-engine Sea | Seat Occupied: | Unknown |
| Other Aircraft Rating(s): | Helicopter | Restraint Used: | Seatbelt |
| Instrument Rating(s): | Airplane | Second Pilot Present: | No |
| Instructor Rating(s): | | Toxicology Performed: | No |
| Medical Certification: | Class 2 Valid Medical--w/ waivers/lim. | Last FAA Medical Exam: | 04/04/1989 |
| Occupational Pilot: | Last Flight Review or Equivalent: | | |
| Flight Time: | 2300 hours (Total, all aircraft), 50 hours (Total, this make and model), 2000 hours (Pilot In Command, all aircraft), 71 hours (Last 90 days, all aircraft), 35 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|------------------------|---------------------------------------|-----------------|
| Aircraft Make: | CESSNA | Registration: | N711AG |
| Model/Series: | 414 414 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | No |
| Airworthiness Certificate: | | Serial Number: | 414-0016 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | 6 |
| Date/Type of Last Inspection: | Unknown | Certified Max Gross Wt.: | 6825 lbs |
| Time Since Last Inspection: | 0 Hours | Engines: | 2 Reciprocating |
| Airframe Total Time: | | Engine Manufacturer: | LYCOMING |
| ELT: | Installed, activated | Engine Model/Series: | IO-720-1BD |
| Registered Owner: | | Rated Power: | 400 hp |
| Operator: | GRECO, ALEXANDER A | Operating Certificate(s) Held: | None |

Meteorological Information and Flight Plan

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|----------------------------------|--------------------|---|------------------|
| Conditions at Accident Site: | Visual Conditions | Condition of Light: | Day |
| Observation Facility, Elevation: | , 0 ft msl | Distance from Accident Site: | 0 Nautical Miles |
| Observation Time: | 0000 | Direction from Accident Site: | 0° |
| Lowest Cloud Condition: | Clear / 0 ft agl | Visibility | 30 Miles |
| Lowest Ceiling: | None / 0 ft agl | Visibility (RVR): | 0 ft |
| Wind Speed/Gusts: | / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | | Temperature/Dew Point: | -18°C / -18°C |
| Precipitation and Obscuration: | | | |
| Departure Point: | CARLSBAD, CA (CRQ) | Type of Flight Plan Filed: | None |
| Destination: | | Type of Clearance: | None |
| Departure Time: | 1430 PDT | Type of Airspace: | |

Airport Information

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|----------------------|----------------------|---------------------------|-----------|
| Airport: | RAMONA AIRPORT (L39) | Runway Surface Type: | Asphalt |
| Airport Elevation: | 1393 ft | Runway Surface Condition: | Dry |
| Runway Used: | 9 | IFR Approach: | None |
| Runway Length/Width: | 4000 ft / 150 ft | VFR Approach/Landing: | Full Stop |

Wreckage and Impact Information

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|---------------------|--------|----------------------|-----------|
| Crew Injuries: | 1 None | Aircraft Damage: | Destroyed |
| Passenger Injuries: | 2 None | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 3 None | Latitude, Longitude: | |

Administrative Information

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|-----------------------------------|--|--------------|------------|
| Investigator In Charge (IIC): | JAMES A WALL | Report Date: | 03/12/1993 |
| Additional Participating Persons: | | | |
| Publish Date: | | | |
| Investigation Docket: | NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/ . | | |

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).