



# Aviation Investigation Final Report

<b>Location:</b>	MOLINE, Illinois	<b>Accident Number:</b>	CHI00LA038
<b>Date &amp; Time:</b>	November 26, 1999, 14:27 Local	<b>Registration:</b>	N7762Q
<b>Aircraft:</b>	Cessna 310Q	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The airplane was on approach. When the pilot extended his gear, he noticed that there wasn't a green light (down and locked) indication on the left main landing gear. The pilot recycled the gear but still didn't get a safe indication. The pilot advised the control tower at Moline, Illinois, of the unsafe gear condition and requested to make a low pass down runway 23 to have tower controllers look at the landing gear. The tower told the pilot that all three landing gear seemed to be down. The pilot came around and performed a landing on runway 09. On touchdown, the landing gear collapsed and the airplane slid off the left side of the runway. The airplane struck a runway marker and came to rest in the grass, south of the runway. Examination of the airplane's left main landing gear wheel well showed that the landing gear bellcrank was broken and its pivot bolt was bent, and the inboard rod end of the gear lock turn buckle was broken. No other anomalies were found.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the landing gear locking mechanism was not properly locked. Factors relating to this accident were the improper rigging of the gear and the runway marker.

### Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: UNKNOWN

Findings

1. (C) LANDING GEAR, GEAR LOCKING MECHANISM - FRACTURED

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Occurrence #2: GEAR COLLAPSED

Phase of Operation: LANDING - ROLL

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Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: LANDING - ROLL

Findings

2. (F) OBJECT - SIGN

## Factual Information

On November 26, 1999, at 1427 central standard time (cst), a Cessna 310Q, N7762Q, operated by a private pilot, sustained substantial damage when the left main landing gear collapsed during landing on runway 09 (10,002 feet by 150 feet; dry concrete) at the Moline-Quad City Airport, Moline, Illinois. The airplane subsequently departed the runway and struck a runway marker before coming to rest. Visual meteorological conditions prevailed at the time of the accident. The personal flight was being conducted under 14 CFR part 91. A visual rules flight plan was on file. The pilot reported no injuries. The cross-country flight originated at Downers Grove, Illinois, at 1333 cst, and was en route to Moline, Illinois.

In his written statement, the pilot said he was on approach when he extended his gear and noticed that he didn't have a green light on the left main landing gear. The pilot said he recycled the gear and still did not get a safe indication. The pilot advised the Air Traffic Control Tower (ATCT) at Moline of the unsafe gear condition and requested to make a low pass down runway 23 to have tower controllers look at the landing gear. The tower told the pilot that all three landing gear seemed to be down. The pilot came around and performed a landing on runway 09. On touchdown, the landing gear collapsed and the airplane slid off the left side of the runway. The airplane struck a runway marker and came to rest in the grass, south of the runway.

A Federal Aviation Administration (FAA) inspector examined the wreckage at the Moline-Quad City Airport. The leading edge of the airplane's left wing, beginning outboard of the left engine nacelle and running outward to the left tip tank, was crushed inward. The upper and lower wing skins showed heavy buckling. The forward spar was bent aft and buckled. The left aileron was bent upward. The bottom of the left tip tank was scraped, bent inward, and broken open. The left propeller blades were curled back at the tips. Flight control continuity was confirmed. Examination of the left main landing gear wheel well showed that the landing gear bellcrank was broken and its pivot bolt was bent, and the inboard rod end of the gear lock turn buckle was broken.

Examination of the engine, engine controls, and remaining airplane systems revealed no anomalies.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	46, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	March 17, 1998
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	721 hours (Total, all aircraft), 133 hours (Total, this make and model), 616 hours (Pilot In Command, all aircraft), 6 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N7762Q
<b>Model/Series:</b>	310Q 310Q	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	310Q0262
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	October 1, 1999 Annual	<b>Certified Max Gross Wt.:</b>	5300 lbs
<b>Time Since Last Inspection:</b>	4 Hrs	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	3358 Hrs	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-470-VO
<b>Registered Owner:</b>	NICK C. ANAGNOS	<b>Rated Power:</b>	
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	MLI ,590 ft msl	<b>Distance from Accident Site:</b>	1 Nautical Miles
<b>Observation Time:</b>	13:55 Local	<b>Direction from Accident Site:</b>	90°
<b>Lowest Cloud Condition:</b>	Scattered / 3600 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 4400 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	200°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	7°C / 1°C
<b>Precipitation and Obscuration:</b>	N/A - None - Rain		
<b>Departure Point:</b>	DOWNERS GROVE , IL (C24 )	<b>Type of Flight Plan Filed:</b>	VFR
<b>Destination:</b>	(MLI )	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	13:33 Local	<b>Type of Airspace:</b>	Class C

## Airport Information

<b>Airport:</b>	MOLINE-QUAD CITIES MLI	<b>Runway Surface Type:</b>	Concrete
<b>Airport Elevation:</b>	590 ft msl	<b>Runway Surface Condition:</b>	Wet
<b>Runway Used:</b>	9	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	10002 ft / 150 ft	<b>VFR Approach/Landing:</b>	Full stop;Straight-in

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	41.520282,-90.390983(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Bowling, David
<b>Additional Participating Persons:</b>	JIM KENNEDY; WEST CHICAGO , IL
<b>Original Publish Date:</b>	March 2, 2001
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=47855">https://data.nts.gov/Docket?ProjectID=47855</a>

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).