



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	BILLINGS, MT	<b>Accident Number:</b>	SEA99LA103
<b>Date &amp; Time:</b>	07/01/1999, 1445 MDT	<b>Registration:</b>	N3513A
<b>Aircraft:</b>	Piper PA-22	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

## Analysis

The pilot reported that upon touchdown the aircraft began to drift left, and right rudder was applied to correct with no effect. As the drift continued, the pilot applied right brake, increasing brake pressure until he 'was pushing against the seat.' The aircraft continued to veer left, tightening its turn radius until it had rotated more than 180 degrees counter-clockwise. During the rotation, the aircraft settled to the left in line with the runway lights and came to a stop. Post-crash examination by a certified mechanic revealed that the left main landing gear shock strut tube had separated at its attach point to the left main wheel assembly. This would have allowed the release of the left main landing gear, permitting it to pivot into a flat (collapsed) position.

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The separation of the left main landing gear shock strut for undetermined reasons.

## Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: LANDING - ROLL

### Findings

1. (C) LANDING GEAR,MAIN GEAR SHOCK ABSORBING STRUT - SEPARATION
2. (C) REASON FOR OCCURRENCE UNDETERMINED

-----

Occurrence #2: GEAR COLLAPSED  
Phase of Operation: LANDING - ROLL

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	49
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Instrument Rating(s):</b>	None
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	569 hours (Total, all aircraft), 400 hours (Total, this make and model), 520 hours (Pilot In Command, all aircraft), 80 hours (Last 90 days, all aircraft), 63 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N3513A
<b>Model/Series:</b>	PA-22 PA-22	<b>Engines:</b>	1 Reciprocating
<b>Operator:</b>	CHADWICK, THOMAS, K.	<b>Engine Manufacturer:</b>	Lycoming
<b>Operating Certificate(s) Held:</b>	None	<b>Engine Model/Series:</b>	O-290-D2
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	BIL, 3649 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Lowest Ceiling:</b>	None / 0 ft agl	<b>Wind Speed/Gusts, Direction:</b>	8 knots / , 180°
<b>Temperature:</b>	24° C	<b>Visibility</b>	10 Miles
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	HELENA, MT (HLN)	<b>Destination:</b>	(BIL)

## Airport Information

<b>Airport:</b>	BILLINGS LOGAN INTERNATIO (BIL)	<b>Runway Surface Type:</b>	Asphalt
<b>Runway Used:</b>	28R	<b>Runway Surface Condition:</b>	Dry
<b>Runway Length/Width:</b>	10528 ft / 150 ft		

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None

Latitude, Longitude:

## Administrative Information

<b>Investigator In Charge (IIC):</b>	STEVEN A MCCREARY	<b>Adopted Date:</b>	08/10/2000
<b>Investigation Docket:</b>	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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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.