



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	Bozeman, MT	<b>Accident Number:</b>	WPR17LA080
<b>Date &amp; Time:</b>	03/22/2017, 1130 MST	<b>Registration:</b>	N268CR
<b>Aircraft:</b>	MAXCY CHRISTOPHER L STOL KING	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Landing gear collapse	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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## Analysis

The private pilot reported that, shortly after touchdown during landing, the experimental, amateur-built tailwheel equipped airplane immediately veered to the left. The pilot corrected with right rudder and applied engine power; however, the airplane subsequently ground looped, during which the right main landing gear strut collapsed.

The pilot, who was the builder of the airplane, reported that this was the second time the gear struts had bent on this airplane. Following the first event, the pilot had reinforced the landing gear strut, but he believed that the design of the main landing gear was unable to withstand the routine stresses of landing.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to maintain directional control during landing.

## Findings

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<b>Aircraft</b>	Directional control - Not attained/maintained (Cause)
<b>Personnel issues</b>	Aircraft control - Pilot (Cause)

## Factual Information

On March 22, 2017, about 1130 mountain standard time, an experimental, amateur-built, Christopher L. Maxcy STOL King airplane, N268CR, sustained substantial damage during the landing roll at the Bozeman Yellowstone International Airport (BZN), Bozeman, MT, following a landing gear collapse. The private pilot was not injured. The airplane was registered and operated by the pilot under the provisions of 14 *Code of Federal Regulations* Part 91. Visual meteorological conditions prevailed and no flight plan was filed for the personal, local flight which departed about 1040.

The pilot reported that just after touchdown, the tail-wheeled airplane immediately veered left, and he counteracted with right rudder and a little power, but was unable to maintain direction control of the airplane. The airplane subsequently ground looped and the right main landing gear collapsed, resulting in the outboard portion of the right wing striking the runway. The airplane came to rest off the east side of the runway. Near the time of the accident, the winds were reported as variable at 3 knots.

The high-wing airplane was designed for short take-off and landing (STOL) performance. It's fuselage was composed of a welded steel frame with an extended conventional landing gear.

Postaccident examination of the airplane by a Federal Aviation Administration inspector revealed that the right wing was bent upwards about mid-span and was substantially damaged. Additionally, the right landing gear assembly had collapsed under the airplane.

The owner and builder of the airplane stated that he had experienced a previous incident where the landing gear strut was bent during a landing, and he replaced it with a heavier duty version. He further stated that the landing gear design was not strong enough due to its long length and the angles of the gear.

## History of Flight

Landing-landing roll	Loss of control on ground Landing gear collapse (Defining event) Dragged wing/rotor/float/other
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## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	49, Male
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Without Waivers/Limitations	<b>Last FAA Medical Exam:</b>	04/18/2016
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	04/08/2016
<b>Flight Time:</b>	(Estimated) 279 hours (Total, all aircraft), 144 hours (Total, this make and model), 144 hours (Pilot In Command, all aircraft), 8 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	MAXCY CHRISTOPHER L	<b>Registration:</b>	N268CR
<b>Model/Series:</b>	STOL KING NO SERIES	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2010	<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental	<b>Serial Number:</b>	4
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	04/26/2016, Annual	<b>Certified Max Gross Wt.:</b>	1700 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	171.29 Hours at time of accident	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	C91A installed, not activated	<b>Engine Model/Series:</b>	O-320-A2B
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	150 hp
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	BZN, 4473 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1156 MST	Direction from Accident Site:	143°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	Light and Variable /	Turbulence Type Forecast/Actual:	/
Wind Direction:	Variable	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.85 inches Hg	Temperature/Dew Point:	12° C / 4° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bozeman, MT (BZN)	Type of Flight Plan Filed:	None
Destination:	Bozeman, MT (BZN)	Type of Clearance:	VFR
Departure Time:	1040 MST	Type of Airspace:	Class D

## Airport Information

Airport:	BOZEMAN YELLOWSTONE INTL (BZN)	Runway Surface Type:	Asphalt
Airport Elevation:	4473 ft	Runway Surface Condition:	Dry
Runway Used:	21	IFR Approach:	None
Runway Length/Width:	2650 ft / 75 ft	VFR Approach/Landing:	Full Stop; Traffic Pattern

## Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	45.777500, -111.151944 (est)

## Administrative Information

Investigator In Charge (IIC):	Albert P Nixon	Report Date:	11/15/2018
Additional Participating Persons:	Jeremy Gouley; Federal Aviation Administration; Helena, MT		
Publish Date:	11/15/2018		
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	<a href="http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=94904">http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=94904</a>		

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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](#).