



# Aviation Investigation Final Report

<b>Location:</b>	Shelbyville, Illinois	<b>Accident Number:</b>	CEN10CA215
<b>Date &amp; Time:</b>	April 21, 2010, 12:30 Local	<b>Registration:</b>	N4326D
<b>Aircraft:</b>	Murray Starlite	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Sys/Comp malf/fail (non-power)	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Positioning		

## Analysis

The pilot reported that when the experimental, amateur-built airplane touched down for landing, the left main tire “locked up” and the airplane veered to the left. The pilot applied full right rudder and aileron, but the airplane continued to veer off the left side of the runway. The airplane sustained substantial damage when it entered a plowed field, which caused the main landing gear to collapse and the left main tire to go through the left wing. Postaccident inspection of the airplane revealed that left main landing gear rotor and brake exhibited rust with “pitting” and “scarring.” The left tire had a bald spot which was consistent with it being “locked up” and skidding. The aircraft logbook indicated that the airplane’s last conditional inspection was conducted on March 24, 2009, which was about 13 months prior to the accident. The accident flight was the first flight since the airplane had been stored for the winter in August 2009. The pilot reported that he “could have removed the wheels and checked them thoroughly” since the airplane had been in a “barn/hangar” over the winter.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The corrosion of the left landing gear rotor and brake, which resulted in the loss of directional control during the landing rollout, and the pilot’s inadequate preflight inspection.

## Findings

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<b>Aircraft</b>	Brake - Fatigue/wear/corrosion
<b>Aircraft</b>	Brake - Malfunction
<b>Personnel issues</b>	Preflight inspection - Pilot
<b>Aircraft</b>	Scheduled maint checks - Not inspected
<b>Aircraft</b>	Directional control - Attain/maintain not possible

## Factual Information

### History of Flight

<b>Landing-landing roll</b>	Sys/Comp malf/fail (non-power) (Defining event)
<b>Landing-landing roll</b>	Loss of control on ground
<b>Landing-landing roll</b>	Runway excursion
<b>Landing-landing roll</b>	Landing gear collapse

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	37
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea; Multi-engine land	<b>Seat Occupied:</b>	
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	3714 hours (Total, all aircraft), 2 hours (Total, this make and model), 3200 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 23 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Murray	<b>Registration:</b>	N4326D
<b>Model/Series:</b>	Starlite	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	150
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	
<b>Date/Type of Last Inspection:</b>	March 24, 2009 Condition	<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	416 Hrs	<b>Engine Manufacturer:</b>	Rotax
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	447 UL
<b>Registered Owner:</b>	Coastal Empire Flight Training	<b>Rated Power:</b>	40 Horsepower
<b>Operator:</b>	Denis Boissonneault	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	7 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	210°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Marion, IA	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Shelbyville, IL (2H0 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	10:45 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Shelby County Airport 2H0	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	18	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	4099 ft / 75 ft	<b>VFR Approach/Landing:</b>	Full stop

## 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>	
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	39.410278,-88.845275(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Silliman, James
<b>Additional Participating Persons:</b>	Stephanie Williams; FAA Springfield FSDO; Springfield , IL
<b>Original Publish Date:</b>	August 12, 2010
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=75816">https://data.nts.gov/Docket?ProjectID=75816</a>

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