



# Aviation Investigation Final Report

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<b>Location:</b>	Ontario, Oregon	<b>Accident Number:</b>	SEA02LA010
<b>Date &amp; Time:</b>	November 2, 2001, 14:00 Local	<b>Registration:</b>	N26WF
<b>Aircraft:</b>	Fetherolf Hatz CB-1	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

The experimental-category amateur-built airplane suffered a broken weld in the right main landing gear during landing, resulting in a separation of the right main gear tire. The pilot reported that he landed to the north (runway 32) on a 4,529- by 100-foot hard-surface runway. He reported that he touched down with a light bounce. He stated that while rolling, there was suddenly a violent pull to the right after hearing a "crunch." The pilot reported that he applied left brake but that the plane left the runway to the right, went into the dirt and up onto its nose and upper left wingtip. He reported that the aircraft, including the failed part, had 17.4 hours total time. The pilot, who had built the aircraft, listed "better construction [technique] by builder" as an owner/operator safety recommendation on his NTSB accident report.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: An improper weld in the landing gear, resulting in separation of the right main landing gear wheel during a normal landing.

## Findings

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Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: LANDING

### Findings

1. (C) LANDING GEAR - IMPROPER/POOR WELD
2. LANDING GEAR,WHEEL - SEPARATION

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Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: LANDING

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Occurrence #3: NOSE DOWN

Phase of Operation: LANDING

## Factual Information

On November 2, 2001, approximately 1400 mountain standard time, a Fetherolf Hatz CB-1 experimental-category amateur-built airplane, N26WF, suffered a broken weld in the right main landing gear during landing at Ontario, Oregon, resulting in a separation of the right main gear tire. The airplane subsequently departed the side of the landing runway and nosed down, receiving substantial damage. The private pilot-in-command of the aircraft, who owned and had built the airplane and was its sole occupant, was not injured in the accident. Visual meteorological conditions with light and variable winds prevailed and no flight plan had been filed for the 14 CFR 91 personal flight from Nampa, Idaho.

The pilot reported that he landed to the north (runway 32) on a 4,529- by 100-foot hard-surface runway. He reported that he touched down with a light bounce. He stated that while rolling, there was suddenly a violent pull to the right after hearing a "crunch." The pilot reported that he applied left brake but that the plane left the runway to the right, went into the dirt and up onto its nose and upper left wingtip. He reported that the airplane, including the part that suffered the broken weld, had 17.4 hours total time. The pilot listed "better construction [technique] by builder" as an owner/operator safety recommendation on his NTSB accident report.

The pilot, who also held a repairman/experimental aircraft builder certificate for the accident aircraft, indicated on his NTSB accident report that the aircraft's last inspection was a continuous airworthiness inspection performed on August 3, 1995, 17.4 flight hours before the accident. A copy of the aircraft's engine log furnished by the pilot contained an entry dated September 15, 2001, for a "conditional inspection" signed by the pilot. The pilot did not furnish a copy of the aircraft log. According to the FAA aircraft registry, the accident aircraft received an experimental/amateur-built airworthiness certificate on April 22, 1999.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	60, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Rear
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<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 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	February 22, 2000
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	September 5, 2000
<b>Flight Time:</b>	132 hours (Total, all aircraft), 20 hours (Total, this make and model), 132 hours (Pilot In Command, all aircraft), 5 hours (Last 90 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Fetherolf	<b>Registration:</b>	N26WF
<b>Model/Series:</b>	Hatz CB-1	<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>	CB-1 222
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	Unknown	<b>Certified Max Gross Wt.:</b>	1600 lbs
<b>Time Since Last Inspection:</b>	17.4 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	17.4 Hrs	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-290-D
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	125 Horsepower
<b>Operator:</b>	On file	<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>	ONO,2193 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	13:53 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	3 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.19 inches Hg	<b>Temperature/Dew Point:</b>	17°C / 6°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Nampa, ID (S67 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Ontario, OR (ONO )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	12:54 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	Ontario Muni ONO	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	2193 ft msl	<b>Runway Surface Condition:</b>	Unknown
<b>Runway Used:</b>	32	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	4529 ft / 100 ft	<b>VFR Approach/Landing:</b>	Full stop;Traffic pattern

## 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>	44.079162,-117.010757(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Nesemeier, Gregg
<b>Additional Participating Persons:</b>	Lewis Sanders; FAA - Boise FSDO; Boise, ID
<b>Original Publish Date:</b>	June 18, 2002
<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=53716">https://data.nts.gov/Docket?ProjectID=53716</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).